



GLOBAL EDUCATION NETWORK (GEN)

In Collaboration with Soft Contents, UK

THE 12TH

ANNUAL MULTI-DISCIPLINARY INTERNATIONAL CONFERENCE 2023

BOOK OF PROCEEDINGS

THEME:



**RESEARCH, TECHNOLOGY AND
QUALITY EDUCATION FOR
SUSTAINABLE DEVELOPMENT**

EDITORS:

Emmanuel O. Adu
Martins Fabunmi
Roy Tokunbo Olowu

DATE: MONDAY, 18TH – WEDNESDAY, 20TH SEPTEMBER, 2023

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Review Process

A total of 76 full manuscripts from different fields of study were received. All the full papers were subjected to a thorough process of double peer review. The professional team of GEN's Reviewers was drawn from different countries and strictly guided by the GEN's Review Criteria. They were also requested to look at the manuscripts with the view to assisting authors in producing the best quality articles.

Following the review process, the editorial committee considered the reviewers' comments most of the articles were suitable for publication. The authors of these suitably qualified articles were given the reviewers' reports and asked to use the suggestions to strengthen their papers. After the receipt of the corrected manuscripts, the editorial committee approved 54 out of the 76 articles for presentation during the hybrid conference. The 54 articles presented were opened for further comments, suggestions and valid critiquing at the times of presentations. Finally, 39 articles were found suitable for inclusion in this Conference Proceedings. This gives an acceptance rate was about 51.32 %.

Preface

This book, titled *Research, Technology and Quality Education for Sustainable Development*, is the proceedings of the 12th multidisciplinary conference of Global Education Network (GEN) held on 18th – 20th September 2023 in collaboration with Soft Contents, United Kingdom at the Liverpool Hope University, Hope Park Campus, UK. The following three erudite scholars edited the book: Professor Martins Fabunmi of the Institute for Educational Planning and Administration (IEPA), University of Cape Coast, Ghana; Professor Emmanuel O. Adu of the University of Fort Hare, South Africa and Mr. Roy Tokunbo Olowu of the Soft Contents, United Kingdom.

This Book of Proceedings is a compendium of thirty five articles presented during the conference, which are structured into five sections as follows: Section One: Administration of Education comprises Sustainable Development: Institutional Culture and Teachers' Job Engagement in Public Senior Secondary Schools in Ibadan Metropolis, Oyo State, Nigeria, Compensation Management: As A Sine-Qua-Non for Productivity of Senior Secondary School Teachers in Ekiti State, Nigeria, (Mis) Conceptions of African Culture and Authority of Men in School Governance Participation: The Case of Three Selected Eastern Cape Schools Governing Bodies (SGBs), Quality Assurance Strategies, School Location and Universal Basic Education Instructional Goals' Attainment in Junior Secondary Schools in South-West, Nigeria, The Role of Rural Higher Education Institutions in Leading Societal Transformation Through Sustainable Initiatives, Hybridisation of University Education for Sustainable Development in Nigeria, and Educational Leadership and Artificial Intelligence for Sustainable Development.

Section Two: Peace and Security Studies: Social Justice, Peace and Security for Sustainable Development, Theology of Social Inclusion: Lessons from A Study of Domestic Violence in The Old Testament for Contemporary Public Mission, and Higher Education Participation in Human Security Management in Nigeria: Implications for National Development.

Section Three: Science and Technology Education: Teacher's Digital Competence: An Essential Tool For Virtual Classroom Teaching, Information and Communication Technology (ICT) in Teaching and Learning: A South African Context, Digital Teacher and Public Secondary School Teacher Work Performance in the COVID-19 in Ibadan Metropolis, Oyo State, Nigeria, Technology Enhanced Learning to Improve the Quality of Education: Implication for English Teachers Using Mobile Apps for Proficiency in French as A Foreign Language by Nigerian Teacher-Trainees for Lifelong Learning, Postgraduate College Staff Digital Competence as a Predictor of Lecturers' Job Satisfaction for Sustainable Education, Achieving Quality Physics Education for Sustainable Development Through Flipped Classroom Engagement, Counsellors' ICT Skills and Digital Counselling Practice as Determinants for Helping Clients Resolve Psychosocial Challenges in Ibadan Metropolis, Oyo State, Nigeria, Experiences of Online Teaching in South African University: Towards Teacher Professional Development, The Efficacy of Alternative Pedagogical Technologies in Teaching Economics Education to Undergraduates, STEAM Education and Sustainable Development in Early Childhood Classrooms of Zimbabwe, and Post Covid-19 Pandemic Experience in Africa: Online Learning as A Threat to Conventional Tertiary Education and Sustainable Development in Nigeria.

Section Four: Foundation Issues in Education: Do South African Universities Capacitate Students to Meaningfully Contribute to The Realisation of Agenda 2063?, Strategies to Support Economics Teachers with no Specialization in the Subject, South African Context, Numeracy Corners and Lower Basic Public Primary School Pupils' Twenty-first Century Skills Acquisition: Implications for Achieving Sustainable Development Goals in Lagos State, Nigeria, Attaining Sustainable Development Through the Teaching of Geography in Nigerian Schools, Host Teachers' Perceptions of Their Role in The Developing of Professional Skills in Pre-Service Teachers, Young Adults' Perception of Peacebuilding System for Sustainable Development and Security, The South African Early Childhood Development Centers' Overlooking of sociocultural values: Trajectory of Deculturalization, Using Ubuntu Principles in an Endeavour to Decolonize Curriculum in the South African Higher Education Sector, Scaffolding Instructional Strategy and Senior Secondary II Students' Attitude to Reading Comprehension in English Language, Sustainable Development: Effect of Two Cognitive Behaviour Therapies on Reduction of Crystal Methamphetamine Intake among Undergraduate Youths in Abia State, Nigeria, Use of Developmental Checklist in Teaching and Learning at Early Childhood Development Level in Maun Botswana, Perception of Secondary School Teachers on the Application of Research Findings in Classroom Practices: Implications for Sustainable Development, and Reducing Prejudice Against Students with Disabilities in Inclusive Settings Through the Afrocentric Model of Inclusion.

Section Five: Vocational Education: Towards Empowering Technical Vocational Education and Training (TVET) Youths Through Entrepreneurship Education for Sustainable Development in Lagos State, Nigeria, Entrepreneurial Education and Entrepreneurial Mindset Among Students of Osun State College of Education, Ilesa, University Support Services, Entrepreneurship Education and Students' Entrepreneurial Intention for Sustainable Development: An Empirical Analysis Illustrations of Critical, Transformative, and Holistic Education for Sustainable Development and Global Citizenship.

Global Education Network (GEN) aims to bridge the gap between countries around the globe by promoting research, organising conferences and providing mentorship to the crop of young researchers. Although, the birthplace of GEN is Africa, but now the web of GEN has entangled Europe and is gradually trickling to the USA and Asia. We desire to make available research reports in all continents to researchers and general readers. This will enable cross-fertilisation of ideas and networking. The book contains articles from different disciplines. It is a reflection of the multidisciplinary nature of GEN's conferences. GEN continues to attract scholars from various disciplines from all over the world to its conferences. I, therefore, implore all teacher educators, researchers and policy advocates to be part of this mass movement and have their articles published in globally visible publishing outlets. In view of these developments, I recommend this book as a must-read for everybody, irrespective of discipline. Finally, I am grateful to the co-editors for making possible the publication of this Book of Proceedings.

Professor Emmanuel O. Adu
President, Global Education Network

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EDUCATIONAL ADMINISTRATION

SUSTAINABLE DEVELOPMENT: INSTITUTIONAL CULTURE AND TEACHERS' JOB ENGAGEMENT IN PUBLIC SENIOR SECONDARY SCHOOLS IN IBADAN METROPOLIS, OYO STATE, NIGERIA

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Abstract

Sustaining teachers' job engagement is of utmost importance to any nation as education plays a vital role in national development and nation-building. Thus, the study investigates school culture and public senior secondary school teachers' job engagement for sustainable development in Ibadan Metropolis, Oyo State. A descriptive research design was adopted. The population of the study consists of 1,396 teachers and 143 principals in the eleven sampled local governments. The multi-stage sampling procedure was used, a sample size of 715 respondents was sampled of which questionnaires were administered and 600 (80%) of the sampled population were retrieved and used for analysis. The questionnaires yielded reliability coefficients of $r = 0.896$ and 0.667 . Two research questions and two hypotheses were used to guide the study. Results of the findings show a high level of teachers' job engagement, $\bar{X} = 3.56$, and the status of school culture was moderate, $\bar{X} = 2.82$. Hypotheses raised show the significance of school culture on teachers' job engagement $R^2 = 0.78$ and a significant gender difference in teachers' job engagement $P < 0.05$. The study concluded that the nature of the school culture employed influenced teachers' job engagement. Hence, school leaders should provide an enabling environment for teachers to engage.

Keywords: Culture, Public, School, Teachers, Job Engagement, Sustainable

Introduction

In order to be at pace with the fast-growing world of technological inventions and innovations and to be able to proffer solutions to the present and future challenges that may arise because of this development, educational institutions should be on the same page with the technological world. Thus, teachers' job engagement is imperative to sustaining educational reforms and development that will usher in the world of technological innovations and invention while proffering solutions to the present and future challenges the world may experience. As teachers are the prime movers for maintaining and enforcing educational goals and objectives, teachers' job engagement therefore, is the manner and way a teacher is devoted and absorbed in the job without being coerced or forced to derive a sense of satisfaction and self-fulfillments in the job (Misu, Radu, Deaconu & Toman, 2022). It could also be viewed as the intrinsic passionate disposition of the mind that begins from the heart, manifesting in the character, behaviour, and activities of the teacher. It is the force that energizes performance beyond expectations and keeps the teacher focused and fully involved in the progress and successes of the institution. A teacher that is engaged

is fully unswerving, zealous, enthusiastic, and absorbed with work and the teaching profession (Budiene & Didkiene, 2020). This teacher goes all the way to impacting students and professional colleagues to reproduce themselves. They do so by taking responsibility for their students' learning, monitoring their progress, recognizing their instructional needs putting in place all measures to align their teachings to students' needs (Orediene & Ebo, 2021). Engaged teachers are optimistic about their students' success and expect the best from them knowing that their expectations about their students spur them to succeed in learning. Moreover, such teachers are careful to give prompt feedback about students' successes or failures, which helps students, improve themselves and be aware of their status regarding learning.

Aside from parents, teachers are next in line with greater influence in the life of a child. They take the child through various stages in life and their impacts are seen all through the lifetime of the child. Teachers are a caregiver, role models, life coaches, a facilitator and a leader who lead by setting the pace for their followers (students) to follow. Students trust the judgement of their teacher more than their parents and so hold their teachers' values and beliefs with great regard. Hence, their position cannot be over-emphasised in our emergent world where students practise what they see others and their teacher do. Actively engaging teachers in their job should be a collective effort from all educational stakeholders, government, parents and society as this will result in students' high academic achievement.

Additionally, Oredein and Ebo (2021) posited teachers' job engagement is synonymous with effective organisational commitment where workers are actively committed and passionately devoted to their job and the organisation where they work. Employees are not only happy with their job but also want to remain and be fully involved in the organisational activities by actively participating in meetings, and discussions and contributing effectively to the success of the organization (Aroward, Alamajali, Massa'deh, Obeidat & AAqqad, 2019). This type of organisational commitment rewards the organisation with high employee productivity, reduced absenteeism, promotes team spirit and reduces the turnover rate.

More so, Klassen, Yerdelen and Durksen, (2013) categorised teachers' job engagement into three domains; they are the cognitive, operative, and affective domains. A teacher is said to be engaged if the three domains are active and in operation in the teacher. The cognitive domain is the teachers' intellectuality; that is, having comprehensive and in-depth knowledge and confidence about the subject of teaching and going beyond the normal curriculum delivery requirement making the subject matter interesting and fully captivating to students (Misu, Radu, Deaconu & Toman, 2022). This type of knowledge enhances the teachers' ability to deliver and their disposition toward students is cordial; these motivate students to feel free and clarify their curiosity and thoughts. In a situation where the reverse is the case, the teacher may sometimes become cranky and aggressive thus, inducing fear and discouraging students from making further enquiries.

According to Zaki, (2019), the affective domain is the passion that drives the teacher, the teacher is passionately absorbed in the job, deeply enjoying and sees it as part of what

makes life worth living, which results in transferring knowledge to students in a way that helps students internalize it. Passionate teachers do not consider the time spent discharging their duties but are emotionally attached and enjoy their job doing all necessary to get the job done; making sure their students' academic achievement is guaranteed. The last domain is the operative domain which can be active when teachers enthusiastically participate in collaborating with colleagues, exploring ways of improving best practices and developing novel and effective teaching strategies relevant to their student's academic needs (Klassen, Yerdelen & Durksen, 2013). Learning for such teachers is a continuum and they do so continuously be at the top of their profession and to meritoriously impact their students.

School culture has been discovered to be one of the most important factors that influence teachers' job engagement. School culture is the values, beliefs and norms guiding the behaviour and conduct of members of a school or institution. School culture as speculated by Logan (2017) varies from school to school and it is distinguished between and among schools providing the school with a sense of identity. School culture is shown in the sensation one gets when strolling down the hallway; standing in the school assembly, and the feeling one gets when in the staffroom (Logan, 2017). School culture provides the standard for behaviour and also enhances stability and binds employees together (Lee & Lious, 2019). It is as imperative as the curriculum and can be referred to as the credence, views, interactions, and approaches engraved and unrecorded guidelines that shape and impact every aspect of the school and how it functions (Duan, Du and Yu, 2018). It is a system of mutual orientations that clench the unit together giving it a unique distinctiveness, ethics, models, and implicit moulds (Duan, Du & Yu, 2018). A school culture that is positive or open is a safe nurturing environment that nurtures teachers, students and parents. These encourage teachers' professional growth, teachers' effectiveness and satisfaction, boost morale, encourage collaboration, and keep communication channels open (Logan, 2017). In the word of Robertson (2019), an open school culture gives equal rights to every member of the school community to develop and grow their capacity and potential. Thus, such school culture considers both teachers and students to be capable of setting goals and leading which impacts the leadership skills of teachers helping them to make proper use of their gifts and talents (Robertson, 2019).

On the other hand, a negative school culture has been described as a place where staff are particularly disjointed, the communication channel is closed, no professional growth, the environment does not support creative teaching and learning and promotes competition where negative values and hopelessness rule (Druzinec, 2019). When a school culture is open and authentic, teachers and staff members are encouraged to discuss their feelings, visions are clear and on board, and teachers feel appreciated, employees are more likely to get engaged and feel happy doing their job (Logan, 2017). This in turn will produce highly engaged students that will effectively maximise their learning opportunities.

The study will also investigate gender difference in teachers' job engagement level as gender occasionally play a significant role in a patriarchal society like Africa. Besides, from the researchers' observation and experience, female teachers appear to be more engaged in the teaching profession than male teachers.

Engaging teachers in their job is of paramount importance not only to the educational institution but also to the society and the world at large as no society can develop without effectively engaging its teachers as teachers are at the forefront of nation-building and national development. To this end, this study will examine school culture as one of the many factors that can influence teachers' job engagement.

Statement of the Problem

There is a growing concern about teachers' job engagement level across the various tiers of educational institutions in Nigeria; particularly the secondary school level which is a transition between the basic and the foundation of the educational system. Based on personal findings and observations, the engagement level of teachers in Nigeria, particularly teachers in the Ibadan metropolis, Oyo State seems to have dwindled, which may have resulted in students' low academic achievement, which seems evident in the recent WAEC result. Gone are the days when teachers were fully vested and engaged in their job and could go the extra mile for students to get engaged, then the teaching profession was perceived as the hub of morals, integrity, hard work and honesty. But in recent times the situation has changed, educational institutions are now confronted with the challenge of recruiting teachers that are fully engaged in the teaching profession as some teachers appear to have lost the passion and commitment that goes with the profession and seem not to be willing to go the extra mile in delivering educational goals and objectives. Thus, teachers' job engagement can be effective if some factors are duly considered and put in place. These factors are but are not limited to the nature of work undertaken by teachers, timely reward and recognition for work done, leadership styles and the type of school culture practised. Much research work had been carried out on Principals' leadership styles and teachers' job performance in secondary schools in Edo State; much had also been said on leadership styles and their relation to employee engagement in selected public secondary schools in Ile-Ife, Osun State (Imhangbe, Okecha & Obozuwa, 2018; Adeleke, 2017). However, school culture and public senior secondary school teachers' job engagement in Ibadan Metropolis had not been fully researched. To this end, this research work will investigate school culture and public senior secondary school teachers' job engagement for sustainable development in the Ibadan metropolis, Oyo State.

Aim and Objectives of the Study

This study aims to investigate the influence of school culture on public senior secondary school teachers' job engagement levels for sustainable development in the Ibadan metropolis. The objectives are to:

- i) identify the level of teachers' job engagement for sustainable development in public senior secondary schools in the Ibadan metropolis, Oyo State.
- ii) identify the status of school culture in public senior secondary schools in the Ibadan metropolis
- iii) examine the influence of school culture on public senior secondary school teachers' job engagement for sustainable development in the Ibadan metropolis.
- iv) determine the gender difference in teachers' job engagement level of public senior secondary school teachers in the Ibadan metropolis

Research Questions

The following research questions were raised:

- i) what is the level of teachers' job engagement for sustainable development in public senior secondary schools in the Ibadan metropolis?
- ii) what is the status of school culture in public senior secondary schools in the Ibadan metropolis?

Hypotheses

The following null hypotheses would be tested at a 0.05 level of significance.

- i) There will be no significant influence of school culture on public senior secondary school teachers' job engagement in the Ibadan metropolis.
- ii) There will be no significant gender difference in teachers' job engagement level of public senior secondary school teachers, in the Ibadan metropolis.

Methodology

The descriptive survey research design was utilised in carrying out this study. The population of the study consisted of teachers and principals in the eleven (11) local government public senior secondary schools in the Ibadan metropolis which is made up of five (5) Megacities and six (6) less cities. The total number of public senior secondary schools in the Ibadan metropolis is (285) that is; (129) megacities and (156) less cities respectively. There are also two hundred and eighty-five (285) principals and six thousand and eighty-one (6,081) teachers respectively in the public senior secondary schools in the Ibadan metropolis. A multistage sampling procedure was used to achieve the sample size for the study. Sample sizes of at least 715 respondents were selected.

Two questionnaires were the instrument used for data collection: "Teachers' Questionnaire (Principal Leadership Styles, School Culture and Job Engagement – PLSSCJE)" and "Principal Questionnaire (Leadership Styles- LS)". The first questionnaire is the "Teachers Questionnaire" is divided into five (5) sections (A, B, C, D and E) and consists of structured items. The instrument was given a face and content validation. A pilot study was carried out to validate the instrument and the reliability of the instrument gave a coefficient value of $r=0.896$ for teachers' questionnaires and 0.667 for principals' questionnaires. Data collected were analysed using frequency, percentage, mean and standard deviation for bio-data and the research questions while inferential statistics of multiple regression analysis (ANOVA) and t-test were also used to test the hypothesis of the study at a 0.05 level of significance.

Results

RQ 1: What is the level of teachers' job engagement in public senior secondary schools in the Ibadan metropolis?

Table 4.1 Shows Teachers' Job Engagement Level in Public Senior Secondary Schools in Ibadan Metropolis

S/N	Items 'I'	Very True Freq (per%)	True Freq (per%)	Moderate Freq (per%)	Not True Freq (per%)	Mean	SD
1	have first-hand knowledge of my subject of instruction	398 (80.9)	77 (15.7%)	12 (2.4%)	5 (1.0%)	3.76	.539
2	understand all that is required of me as regards my job as a teacher	367 (74.6%)	115 (23.4%)	7 (1.4%)	3 (0.6%)	3.72	.517
3	am comfortable with the school's vision and mission	227 (46.1%)	180 (36.6%)	67 (13.6%)	18 (3.7%)	3.25	.826
	Weighted Mean					3.58	
	b. Affective engagement						
1	am emotionally attached to my teaching profession	258 (52.4%)	172 (35.0%)	43 (8.7%)	19 (3.9%)	3.36	.799
2	am passionate about my job and I love what I do as a professional	368 (74.8%)	96 (19.5%)	23 (4.7%)	5 (1.0%)	3.68	.610
3	can go to any length to bring my teaching home to students'	293 (59.6%)	155 (31.5%)	33 (6.7%)	11 (2.2%)	3.48	.720
	Weighted Mean					3.51	
	c. Operative engagement						
1	connect easily with my colleagues and share best practice	269 (54.7%)	194 (39.4%)	27 (5.5%)	2 (0.4%)	3.48	.620
2	connect easily with students	287 (58.3%)	183 (37.2%)	21 (4.3%)	1 (0.2%)	3.54	.589
3	put in all my energy to see that my job is done well	393 (79.9%)	87 (17.7%)	10 (2.0%)	2 (0.4%)	3.77	.492
	Weighted Mean					3.60	
	Overall Weighted Mean					3.56	

Decision Rule: Less than 2.49 is low, between 2.50 and 2.99 is moderate, and 3.00 and above is high.

Table 4.1 shows responses on the three levels of teachers' job engagement (cognitive, affective and operative engagement) of public senior secondary schools in Ibadan Metropolis, Oyo State. The table presents the following: weighted mean values for each level of engagement, cognitive 3.58, affective 3.51 and operative 3.60 with an overall weighted mean of 3.56. This means the level of teachers' job engagement in public senior secondary schools in the Ibadan metropolis is high. Hence, teachers in the sampled local government area of Ibadan Metropolis, Oyo State are highly engaged teachers.

RQ 2: what is the status of school culture in public senior secondary schools in the Ibadan metropolis?

Table 4.2a: Open (Positive) School Culture

S/N	Items: 'My School'	Very True Freq (Per %)	True Freq (Per %)	Moderately Freq (Per %)	Not True Freq (Per %)	Mean	SD
1	operates an open communication system where vital information is discharged fairly to all staff	227 (46.1)	214 (43.5)	35 (7.1)	15 (3.0)	3.33	.740
2	encourage collaboration among staff and students	189 (38.4)	234 (47.6)	55 (11.2)	13 (2.6)	3.22	.745
3	the environment is collegial and friendly to all	157 (31.9)	209 (42.5)	91 (18.5)	34 (6.9)	3.00	.885
4	the environment is not safe for both staff and students	47 (9.6)	61 (12.4)	89 (18.1)	294 (59.8)	1.72	1.014
5	recognizes and rewards hard work	132(26.8)	205(41.7)	108(22.0)	46(9.3)	2.86	.920
Weighted Mean						2.82	

Decision Rule: Less than 2.49 is low, between 2.50 and 2.99 is moderate, 3.00 and above is high. The weighted mean of 2.82 is greater than the mean of 2.50 for open (positive) school culture which is moderate.

Table 4.2a presents responses on the status of open school culture in public senior secondary schools in the sampled local government in Ibadan Metropolis, Oyo State, the

following were revealed: the various mean of the questions raised are; 3.33, 3.22, 3.00, 1.72 and 2.86 respectively. The weighted mean is given as 2.82 which is moderate as stated in the decision rule of the table above. This implies that the status of school culture in public senior secondary schools in Ibadan Metropolis is moderate; hence teachers' engagement is possible in such a school environment.

Table 4.2b: Closed (Negative) School Culture

S/N	Items: My School	Very True Freq (Per %)	True Freq (Per %)	Moderately Freq (Per %)	Not True Freq (Per %)	Mean	SD
1	the environment is biased towards staff and students	25 (5.1)	60 (12.2)	87 (17.7)	319 (54.8)	1.57	.892
2	the environment is safe for all staff members and students	131 (26.6)	179 (36.4)	114 (23.2)	67 (13.6)	2.76	.995
3	promotes unhealthy competition among staff and students	18 (3.7)	59 (12.0)	35 (7.1)	379 (77.0)	1.42	.840
4	the communication system is not fair to all	27 (5.5)	38 (7.7)	81 (16.5)	345 (70.1)	1.48	.858
5	do not consider the feelings and emotions of its staff members	25 (5.1)	32 (6.5)	59 (12.0)	375 (76.2)	1.40	.823
Weighted Mean						1.73	

Decision Rule: Less than 2.49 is low, between 2.50 and 2.99 is moderate, and 3.00 and above is high. The weighted mean of 1.73 is less than the mean of 2.49 for closed (negative) school culture which is low.

Responses on closed school culture in public senior secondary schools in the Ibadan metropolis are presented in table 4.11b, the following was revealed: my school: the environment is biased towards staff and students (mean= 1.57), the environment is safe for all staff members and students (mean=2.76), promotes unhealthy competitions among staffs and students'(mean= 1.42), the communication system is not fair to all (mean= 1.48), and my school do not consider the feelings and emotions of its staff members (mean= 1.40). The weighted mean is given as 1.73 which indicates that the respondents stated the status of school culture is low. This means the school culture does not enhance teachers' engagement.

In conclusion, public senior secondary schools in Ibadan Metropolis that operate an open school culture that enhances teachers' engagement are more than that of closed school culture, hence the status of school culture is moderate.

Hypotheses Testing

H₀₁: There will be no significant influence of school culture on public senior secondary school teachers' job engagement in the Ibadan metropolis.

Table 4.3 Correlation Table Showing the Relationship between School Culture and Teachers' Job Engagement Levels

		Correlation	
		Job Engagement	School culture
Job Engagement	Pearson Correlation	1	.954**
	Sig. (2-tailed)		.000
	N	492	492
School culture	Pearson Correlation	.954**	1
	Sig. (2-tailed)	.000	
	N	492	492

** . Correlation is significant at the 0.01 level (2-tailed).

Table 4.3 presents the results of the relationship between school culture and teachers' job engagement. There is a very strong positive correlation between School culture and Job Engagement. A coefficient of $r = 0.954$, $N = 492$ is extremely high and also the relationship is significant ($p < 0.05$). Hence, 0.934 is very strong and indicates a significant relationship between School culture and Job Engagement.

H₀₂: There will be no significant gender difference in teachers' job engagement level of public senior secondary school teachers, in the Ibadan metropolis.

Table 4.4 t-Test Showing Gender Difference in Teachers' Job Engagement Level Group Statistics

Gender		N	Mean	Std. Deviation	Std. Error Mean
Job Engagement	Female	241	1.071E+15	1.6834E+15	1.0845E+14
	Male	251	7.602E+14	1.368E+15	8.632E+13

Independent Test

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	T	Df	Sig. (2-tailed)
Job Engagement	Equal variances assumed	21.272	0.000	2.254	490	0.025
	Equal variances not assumed			2.244	462.294	0.025

An independent-samples t-test was conducted to compare the job engagement for Male and Female teachers. There are significant differences $t(2.244) = 462.294$, $P(0.025)$ in scores, with the mean for Females ($M = 1.071E+15$, $SD = 1.684E+15$) higher than Males ($M = 7.602E+14$, $SD = 1.368E+15$). The magnitude of the differences in the (mean difference = 622.696, 95% CI: 3.868E+13 to 5.83RE+14) was significant. Hence, H_04 is not supported.

Discussion of Findings

The results revealed that teachers' job engagement to a larger extent depends on the type of school culture in place. (Alkhajeh, 2018) undertake a study on leadership style and employee engagement and (Samosudova, 2017) also studied employee engagement in Ditpolair Polda Metro Jaya these studies also agreed with this assertion. The studies revealed that employee engagement was significantly impacted by digital leadership and learning culture which is an open school culture rather than stress which typifies a closed school culture. The studies revealed that employee engagement was significantly impacted by digital leadership and learning culture which is an open school culture rather than stress which typifies a closed school culture.

As regard the status of school culture in public senior secondary school in Ibadan Metropolis, the findings show the status of school culture is moderate. This means that a larger number of public senior secondary schools in Ibadan Metropolis operate an open school culture that drives teachers' job engagement. This finding collaborates with the study on organisational culture and employee engagement in the Ghanaian public sector (Jibereal, 2021) and the study on the work happiness of teachers that could be predicted by school culture (Martin, 2022). The study shows that employees/teachers easily get engaged in an open culture where they can collaborate with other teachers and their leaders, where they are appreciated, and where their opinion counts. Additionally, when a school operates an open culture, the more teachers' productivity is high, the more driven teachers are eager to achieve educational goals and the more innovative and imaginative they become the more proactive and more dedicated to work and profession.

For hypothesis one, the analysis conducted revealed a strong correction between school culture and public senior secondary school teachers' job engagement in Ibadan Metropolis. A coefficient of $r = 0.954$, $N = 492$ is extremely high and also the relationship is significant ($p < 0.05$). Hence, 0.934 is very strong which indicates a significant relationship between School culture and Job Engagement. This result agrees with the study on leaders behaviour of Arab educational leaders (Amanchukuw, Stanley & Ololube, 2015) and the study on the connection between principal leadership style, school climate and teacher job performance (Thompson, Camp, Trimble & Riggio, 2020) which indicate a strong correction between school culture and teachers' job engagement. However, these findings negate the hypothesis (H_01) raised. Hence, the hypothesis is rejected at a 0.05 level of significance and the alternative is accepted. Thus, the type of school culture practised in the school to a larger extent determines and can affect teachers' job engagement level.

For hypothesis two, the result of the analysis conducted shows a significant difference in the male and female teachers' job engagement levels. This is clearly shown in table 4.4. An independent-samples t-test was conducted to compare the job engagement for male and

female teachers which shows a significant difference $t(2.244) = 462.294$, $P(0.025)$ in scores, with mean for Female ($M = 1.071E+15$, $SD = 1.684E+15$) was higher than Male ($M = 7.602E+14$, $SD = 1.368E+15$). The magnitude of the differences in the (mean difference = 622.696, 95% CI: 3.868E+14 to 5.835E+14) was significant. Hence, H_04 is not supported. As a result, the findings show that female teachers' were more engaged in the teaching profession than male teachers. The discoveries of this study also agreed with the study that indicates a significant difference in teachers' work engagement (Iqbal, Abid, Arshad, Athar & Hassan, 2021). This suggests that female teachers are more cognitively, emotionally and operationally engaged. More so, female teachers also display the trait of nurturing and being sensitive to their students' needs as this characteristic is synonymous with the female gender and nature, unlike male teachers that are strict. However, other findings contradict this assertion and postulate no significant difference between male and female teachers' job engagement (Iqbal, Abid, Arshad, Athar & Hassan, 2021). Thus, male and female teachers need to invest more in the three dimensions of engagement (cognitive, emotional and operative) as this leads to true engagement.

Conclusion

The following conclusions were drawn based on information gathered from the data analysis on school culture and public senior secondary school teachers' job engagement in Ibadan Metropolis. The study revealed that school culture has a strong influence on teachers' job engagement levels. It also showed a moderate status of school culture. Hence, most public senior secondary schools in Ibadan Metropolis implement open school culture that promotes teachers' engagement. The results of the study also confirm a significant gender difference in teachers' job engagement levels in public senior secondary schools in Ibadan Metropolis. This proved that female teachers are more engaged than their male counterparts. These might be because female teachers are more interpersonal due to their gender than male teachers or due to the myth that the teaching profession is more feminine than masculine.

Recommendations

The following are recommended based on the findings of the study.

- i. To maintain and improve a high level of teachers' job engagement in public senior secondary in Ibadan Metropolis, school leaders should adopt the style of leadership that best enhance their teachers' job engagement and also implement an open school culture that will propel engagement.
- ii. Principals, governments and all stakeholders in public senior secondary schools in Ibadan Metropolis should provide an enabling environment for teachers to engage; an environment where teachers are not only seen but heard, where teachers are encouraged and appreciated and also can develop professionally.
- iii. Male teachers should be encouraged to be more relational in the discharge of their teaching role and also accept teaching as a vocation that impacts and modes of lives.

References

Adeleke, O. M. (2017). Leadership Styles and their Relation to Employee Engagement in Selected Public Secondary Schools in Ile-Ife, Osun State. *Journals of Education and Leadership Development*, 9(2)

- Alkhajeh, E. H. (2018). Impact of Leadership Styles on Organisational Performance. *Journal of Human Resources Management Research*. Article ID 687849, 10 pages, ISSN 2166-0018, DOI: 10.5171/2018.687849. <https://ibimapublishing.com/articless/jltRmR/2018/687849/>
- Amanchukwu, R. N, Stanley, G. J. & Ololube, N. P. (2015). A Review of Leadership Theories, Principles and Styles and their Relevance to Educational Management. *Management*. 5(1), 2015, 6-14, DOI:10.5923 <https://j.mm.20150501.02>
- Arowwad, A, Almajali, D, Massa'deh, R. E, Obeidat, B & Aqqad, N (2019): The Role of Organisational Commitment in Enhancing Organisational Effectiveness. *Journal of International Business Information Management Association*. 9133-9154. <https://www.researchgate.net/Publication/332697163>
- Budriene, D & Didkiene, D (2020): Employee Engagement: Types, Levels and Relationship with Practice of HRM. *Malaysian E-Commerce Journal*. ISSN: 2616-5155. doi: <http://doi.org/10.26480/mecj.02.2020.42.47>
- Družinec V. (2019). Review of Empirical Research of School Culture, 2019. *Školski Vjesn*. 68 609–620.
- Duan, X, Du, X & Yu, K (2018). School Culture and School Effectiveness: The Mediating Effect of Teachers' Job Satisfaction. *International Journal of Learning, Teaching and Educational Research*. 17(5), 15-25. <https://doi.org/10.26803/ijlter.17.5.2>
- Imhangbe, O. S, Okecha, R. E & Obozuwa, J (2018). Principals' Leadership Styles and Teachers' Job Performance in Edo State. *Educational Management Administration & Leadership*. 1-16. DOI: 10.1177/1741143218764178 [Journals.sagepub.com/home/ema](https://journals.sagepub.com/home/ema).
- Iqbal, Z. A., Abid, G. M. Arshad., Ashfaq, F, Athar, M. A. & Hassan, Q. (2021). Impact of Authoritative and Laissez-Faire Leadership on Thriving at Work: The Moderating Role of Conscientiousness. *European Journal of Investigation in Health, Psychology and Education*. 11, 2021, 667-685. <https://doi.org/10.3390/ejihpe11030048>.
- Jibereal, S. (2021). A Theoretical Difference between Leadership and Management: *International Journal of Social Science and Education*, 4 (2), 278-286. DOI: 10.53047/josse.959155.
- Klassen, R, Yerdelen, S. & Durksen, T. (2013). Measuring Teachers Engagement: Development of the Engaged Teacher Scale (ETS). *Frontline Learning Research*. 2, 33-52. ISSN 2295-3159.

- Logan, C. (2017). School Culture: A Place where Every Child is a Leader. [https://www.Leader in me.org>blog](https://www.Leaderinme.org>blog).
- Martin, K: Leadership versus Management: The 5 Main Differences –Haiilo. <https://haiilo.com>Blog>Home>, 2022.
- Misu, S. I, Radi. C, Deaconu, A & Toman, S: How to Increase Teacher Performance through Engagement and Work Efficacy. *Sustainability* 2022, 14, 10167 <https://doi.org/10.3390/su141610167>
- Oredein, A.O & Ebo, A. A. (2021). Job and Organisational Commitment of Public Secondary School Teachers in Oyo State, Nigeria. *Ife Social Science Review*. 29 (2), 43-52. www.issr.oauife.edu.ng. ISSN:0331-3115
- Purushotham, A. (2020). A Literature Review Analysis: Employee Engagement Interventions. *Journal of Emerging Technologies and Innovative Research (JETIR)*. 7, 2020, ISSN: 2349-5162. www.jetir.org
- Robertson, L. (2019). How to Create an Open and Honest Culture within your School. 2019. [https:// medium.com>how-to-create-an-open-and-hone...](https://medium.com>how-to-create-an-open-and-hone...)
- Samosudova. N. V: Modern Leadership and Management Methods for Development Organizations. MATEC Web of Conference 106, 08062 2017. DOI: 10.1051/mateccof/201710608062.
- Thompson. J, Camp. J. R, Trimble. J. E & Riggio. R.E: Leadership Styles: The Wiley-Blackwell Encyclopaedia of Personal and Individual Differences. Ch. 347, 2020, Pg. 1-11. DOI; 10.1022/ 9781111 9547181
- Zaki J. (2019). Integrating Empathy and Interpersonal Emotion Regulation. *Annu. Rev. Psychol.* 71 517–540. 10.1146/annurev-psych-010419-050830.

COMPENSATION MANAGEMENT: AS A SINE-QUA-NON FOR PRODUCTIVITY OF SENIOR SECONDARY SCHOOL TEACHERS IN EKITI STATE, NIGERIA

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Abstract

Educational agencies are the mechanisms for controlling, monitoring, funding, and feeding the system of education in a country to achieve the defined objectives and goals. Thus, proper management of the agencies in the educational sector is a necessity if the educational goals of any country will be effectively and efficiently attained. In this light, this position paper discussed managing educational agencies for socioeconomic and political development in the 21st century. The paper examines the definitions of the basic concepts, the educational agencies in Nigeria, factors affecting socioeconomic and political development, and their contributions towards socio-economic and political development. Also, the roles and the challenges of these agencies are critically examined. The theory of modernisation was adopted for the study. In this study descriptive research design was to investigate compensation management: as a sine-qua-non for productivity of senior secondary school teachers in Ekiti State. Self-developed structured questionnaires were used to collect data from the target population. Two hundred copies of the questionnaire for the respondents were administered respectively. The reliability of the instrument was determined through the test-retest method. The findings of the study suggest that all the respondents are not content with the compensation package which they presently earn in their various schools and that teachers in Ekiti State Senior Secondary Schools would prefer to enhance their productivity through an increase in their basic salary, provision of official accommodation and housing loans, and free medical services. The researcher, therefore, recommended among others that the authority (the state government) must take a situational or contingency approach to the application of compensational techniques or compensational strategies, rewards should be related to performance, not to seniority or another non-merit-based criterion and workers should be promoted as at when due as this will motivate them to put in their best.

Keywords: Education, educational agencies, socioeconomic development, political development, theory of modernization.

Introduction

Human motives are generally based on the needs of an individual who produces and sustains behaviour when he finds it rewarding. That is, when the behaviour accomplishes an objective that satisfies a need, there is a motivating factor driving an employee toward achieving the organisational goal for development. An organisation's most important resource is its human resources. This is because the success of any organisation depends to a large extent on the quality of people and the motivation of human resources who work

for the organisation. When other assets, such as machines, materials, and money, are combined with men, an organization's full potential can be actualized.

Manpower training and development as well as welfare services are meant to assist the organisation's employees in developing their skills, changing their attitudes positively toward work and increasing their productivity. In general context, the education sector is expected to organise training that will develop the skills of teachers for productivity. In general context, the education sector is expected to organise training that will develop the skills of teachers for productivity. It is disheartening that incessant strikes, premature death during active service periods, transferred aggressions, untimely payment of salaries and allowances, delayed promotion, and stagnation are among the multifarious problems facing Nigerian teachers. The reason is that teachers in Nigerian secondary schools are not recognised as professionals compared to other professions in economics and social sciences. Human resources in the educational system need to be motivated through incentives.

This starts with the process of training and development of teachers for the effectiveness and efficiency of the system to achieve the lofty objectives of the National Policy on Education. This aspect of welfare services is expected to generate teachers' interest in the educational system, enthusiasm for the job, and a general sense of loyalty and belonging, which seek to promote morale. Education is a springboard to national development, and the welfare of teachers should be paramount to the government. Welfare packages in the areas of health care services, pension and gratuity schemes, transport allowances, leave bonuses, accommodation, housing, car loans and other forms of motivation or compensation are not properly administered. Consequently, the teachers in the educational system are not working effectively and efficiently. They embark on strike actions and use the opportunity to sell products and articles in order to survive in a world of scarcity.

In the words of Awoyinfa (1996), the staff welfare package constitutes the following:

- ix. Financial reward and adequate promotion as at when due
- x. Free medical services
- xi. Official accommodation and housing loans
- xii. Transport services and vehicle loans
- xiii. A reward of excellence and display of ingenuity
- xiv. Good working environment and
Staff training and development programmes

The probability of commitment and productivity increases with the availability of good welfare programs for employees. The best types of employees are typically drawn to firms that flaunt what are thought to be the best incentive programmes nowadays. The motivational benefits of a suitable and equitable remuneration structure are highlighted by this element. Nonetheless, it is found that the incapacity of modern pupils to reach the established standards of education in Nigeria is a result of the teachers' inadequate working circumstances. Both the states and the federal government should therefore have attitudinal re-orientation towards the welfare of teachers in post-primary schools. It was against this

background that the study assessed the influence of compensation on the productivity of teachers in the Ekiti State of Nigeria

Statement of the Problem

All educational institutions are concerned with what should be done to achieve or sustain a high level of performance through teachers. This involves paying close attention to how individuals working in educational institutions/organisations can be best compensated and motivated, in form of incentives remuneration, the provision of a conducive work environment, etc. These in the long run will promote employees' localities and maximum performance.

It was observed that often times, compensation and motivation are supported by naive assumptions about how the concepts work, rather than, how they can be adequately planned and effectively applied in educational institutions/organisations. The process of formulating compensation policies is actually more complex than many managers and management envisage. Such managers often ignore the technicalities involved in compensation and management. Moreso, compensation and incentives are most likely to function effectively if they are based on proper understanding what the concepts is all about in addition to their applicability.

Some researchers noted that compensation in form of financial rewards help in enhancing employee/teachers performance. For instance, Nigerian workers generally see wages/salaries as the most important yard stick for measuring the value of their contributions to the organisations but serve it to state that, even though money is a major motivating factor and a source of satisfaction. Other factors such as; the nature of work organizational environment, style of management relationship with other teachers/employees educational institutions performance and its outlook for the future can be described as important factors which can boost employees morale and stimulate high performance. The essence of all compensation and motivation efforts is to increase teachers/employee's performance/productivity. An unmotivated teacher/employee is a threat to any educational institutions because he/she may become antagonistic to management in addition to sabotaging the realisation of the goals of the educational institutions.

Adequate compensation scheme/structure has been proven to be an important factor determining the success or failure of organizations. In view of this, management team of educational institutions even though they realized the importance of a highly compensated and motivated workforce in the light of stiff competition in the educational institutions, they have not really done much to boost their teachers/employees morale enable them give off their best. Designing a good compensation system and maintaining highly motivated teachers are the most important and difficult functions of personnel management. Educational institutions are presently facing the employees to adequately compensate the employees to other organizations while productivity has remained at a low ebb.

Many educational institution employees knowing that their salaries could no longer sustain them engaged in other part-time paying activities in addition to their jobs to make ends meet. There are others whose employment statuses are very unstable while the few

employees with the stability of tenure are not adequately motivated and compensated. Having created the above scenario, there is a need to find out teachers' compensation packages in relation to their productivity and how to find solutions to these problems.

Literature Review

Theoretical Framework

This study is anchored on theories of motivation. Theories of motivation fall into two categories: Content Theories and Process theories. Content theories focus on the factors that energise, direct and sustain persons to be productive. They attempt to determine the specific needs that motivate people to work towards achieving organisational goals. The content theories focus on individual needs in explaining job satisfaction, worker behaviour, and reward systems. The theories suggest that within a person, an individual's need deficiencies activate tensions that trigger a behavioural response. For managers to be effective, the content theories suggest that they must:

1. determine what needs to trigger desired performance, group, and personal behaviours.
2. be able to offer meaningful rewards that help the employee satisfy a need.
3. know when to offer appropriate rewards to optimize performance behaviour, and
4. not assume that a person's need deficiencies will repeat themselves in a regular pattern. People change because of experiences, life events, ageing culture, environmental changes, and other factors.

Alderfer's ERG Theory (1972) content theories of motivation were adopted for this study. On the other hand, process theories explain and examine how behaviour is sparked, guided, sustained, and stopped by factors that are primarily external to the person. These theories of motivation build on content theories by describing the motivational process. It has shown to be easier to defend and support for behavioural science researchers, and process theories have shown to be more advantageous and useful for reward system designers than content theories. Because they imply that motivation is a process with distinguishable and potentially observable parts, process theories of motivation are more widely accepted. The most significant study on employee behaviour is probably that done by B.F. Skinner, also known as "Operant Conditioning." The operant (learned) behaviour is the main focus. According to Skinner (1963), operant behaviour is influenced, altered, and directed by the environment in addition to being dependent on its outcomes.

The four methods of rewarding behaviour used to promote and achieve desired behaviour are as follows:

- Ongoing encouragement
- Sanctions
- Negative reinforcement
- Extinction

The Concept of Compensation

Compensation is an important motivating factor that enhances the productivity of employees toward achieving organisational goals. According to Akubuiro (2002), compensation includes paying employees' wages, salaries, and other benefits. It is described as a comprehensive package by Olusina (2003), which also cover relocation costs, welfare benefits, and reimbursement for travel expenses.

From these above definitions, compensation is seen as an aspect of motivation that arouses people to work harder and contributes to organisational efficiency. In the words of Olubusayo, *et al.* (2014), it is an incentive that makes a person works towards a goal and generates goal-directed behaviours. Compensation packages, therefore, refer to both financial and non-financial benefits enjoyed by employees in organisational set-ups. These benefits include rewards and promotions, medical services, official accommodation, housing loans, transport services and vehicle loans, a conducive working environment, staff training, and development programmes.

Compensation Management

Compensation management is about the design implementation, maintenance, communication, and evolution of reward processes, which help the organization to improve performance and achieve their objectives in compensation. According to Flippo (1994), it is the adequate and equitable remuneration of personnel for their contribution to organizational objectives. He goes further to explain that employee compensation policies or programmes are designed to meet three things:

- i. To attract capable employees to the organization
- ii. To motivate them towards superior performance and thus enhance organizational productivity and
- iii. To retain their services over an extended period.

Odunlami and Asabi (2014) state that to retain a well-trained and highly motivated employee an organization must not only reward its employees with praise but also with proper pay and benefit. This is why educational institutions, governments or firms may follow one of three basic pay level strategies pay above market pay at the market and pay below market.

Compensation Administration

All organisations need to determine the amount of compensation that is to be paid to each employee in each position under possible variations in working conditions that occur. According to Aina (2005), the process and mechanism for calculating employee compensation plan must be designed in the following ways: In a systematic manner; with adequate consideration for the present levels of pay, with careful consideration for the relative worth of the various sorts of employment in the community; Based on accurate, up-to-date knowledge of the types and levels of work each employee performs, and in a way that ensures that every employee is treated equally and fairly, without favouritism, bias, or discrimination for improper reasons. In a nutshell, the procedure for determining employee compensation must be orderly, systematic, rational, and equitable.

Effects of Compensation Packages on Teachers' Productivity in Public Secondary Schools

Compensation packages have tremendous effects on teachers' productivity in schools. Ejiogu (1990) asserts that to attract and retain a qualified and productive workforce that would contribute to organisational goals, organisations should strive to pay competitive salaries and wages. Organisations should endeavor to pay competitive wages or, at any rate, wages that are better than those paid by their competitors. Fringe benefits tend to provide a more direct and positive source of motivation, especially in a place where salary structures are harmonized.

Kusodge (1982); Bolarin (1992) and Obulade (1989) stress that teachers will perform better in schools if they are satisfied on the job through adequate compensation packages. The greater the access to good compensation packages, the greater the possibility of commitment and productivity of teachers in public secondary schools. In the words of Ejiofor (1984), a fair and adequate welfare package for employees is unquestionably one of the most significant elements in the maintenance of a satisfied and efficient workforce. The success of any institution largely depends on the quality and efficiency of its personnel, who perform the functions necessary for fulfilling the stated goals and objectives of the institution. No management system will be effective if it continually emphasizes higher levels of performance and improvement but fails to reward and recognize personnel and employees for their higher performance levels. It is, therefore, unarguable that teachers, who are the human capital in the schools, need to attract some consideration as beneficiaries of compensation packages in order to ensure high-quality production services despite all the challenges.

Purpose of the Study

The specific aim of compensation in any organization is to encourage the staff to be more committed to their duty because compensation is related to the satisfaction of the needs of staff members. This study therefore aimed at:

1. probing into teachers' compensation packages in relation to their productivity.
2. finding out whether the conditions of service of secondary school teachers have an effect on their productivity.

Research Hypotheses

The following hypotheses were developed and tested in response to the study's problem.

- Ho₁: Basic salary has no significant influence on the productivity of Teachers in Senior Secondary Schools in Ekiti State of Nigeria.
- Ho₂: Official accommodation and housing loans have no significant influence on the productivity of Senior Secondary School teachers in Ekiti State of Nigeria.
- Ho₃: Free medical Services have no significant influence on the productivity of Teachers in Senior Secondary School teachers in Ekiti State of Nigeria.

Methodology

This study was descriptive research because it described and interpreted the relationships that existed between compensation packages and the productivity of Secondary School

teachers in Ekiti State. The study focused its target on all the categories of teachers (M.Ed, B.Ed, B.Sc/B.A plus PGDE, and HND plus PGDE holders) in Ekiti State Senior Secondary Schools, and this included both males and females. The sample consisted of twenty secondary schools randomly selected from five from Oye Local Government area. Four secondary schools were selected from each. Ten teachers comprising five males and five females were also selected from each school, making the total number of teachers slated for the study to be 200. On the whole, the sample comprised twenty Senior Secondary Schools and 200 teachers.

Research Instrumentation

The questionnaire titled Compensational Predictors of Teachers' Productivity Questionnaire, which was divided into two sections, was used in the study. Section A requested respondents' bio-data, such as school name, age, gender, academic qualification, marital status, and work experience. Section B consisted of thirty-item questions. This was to seek answers to the earlier stated hypotheses. Responses to the items were based on a four-point Likert Scale type of Very True, True, Untrue, and Very untrue.

To require the validity of the research instrument, it was given to an expert in the field of educational management who made structural corrections in line with what the instrument was set to measure. The instrument's dependability was evaluated using the Test-Retest method. As a result, the questionnaire was distributed to a subset of the study population. Following that, the same questions were re-administered to the same respondents for two weeks to ensure reliability. The reliability test coefficient was 0.78, indicating that the instrument is reliable. Chi-square statistics were used to analyze the data collected.

Results

This result was interpreted using data generated through the questionnaire the survey. Similarly, statistical techniques such as the chi-square method were employed to detect the opinions expressed by the various respondents involved in the study.

Hypothesis 1: Basic salary has no significant influence on the productivity of Senior Secondary School teachers in Ekiti State of Nigeria.

Table 1: Influence of basic salary on the productivity of teachers

Df	X ² Cal	X ² Tab	P	Decision
12	256.05*	21.0261	0.05	Significant

*The result is significant

Table 1 shows that the calculated chi-square of 256.05 is greater than the table value of 21.0261 at the level of significance 0.05 with degrees of freedom 12. This shows that the result is significant. Therefore, the hypothesis that states that basic salary has no significant influence on the productivity of teachers in Ekiti State Senior Secondary Schools is rejected. Hence, the basic salary has a significant influence on the productivity of teachers in Ekiti State Senior Secondary Schools.

Hypothesis 2: Official accommodation and housing loan have no significant influence on the productivity of Senior Secondary School teachers in Ekiti State of Nigeria.

Table 2: Influence of Official accommodation and housing loan on the productivity of teachers.

Df	X ² Cal	X ² Tab	level	Decision
12	226.144*	21.0261	0.05	Significant

*The result is significant.

Table 2 indicates that the calculated chi-square value of 226.144 is greater than the table value of 21.0261 at the level significance of 0.05 with the degree of freedom 12. This shows that the result is significant. The hypothesis that states that Official accommodation and housing loan have no significant influence on the productivity of teachers in Ekiti State is therefore rejected. By implication, official accommodation and housing loan of teachers do influence their productivity in Senior Secondary Schools in Ekiti State of Nigeria.

Hypothesis 3: Free medical services have no significant influence on the productivity of Senior Secondary School teachers in Ekiti State of Nigeria.

Table 2: Influence of free medical services on the productivity of teachers.

Df	X ² Cal	X ² Tab	P	Decision
	277.12*	21.0261	0.05	Significant

*The result is significant.

Table 3 indicates that the calculated Chi-square value of 277.12 is greater than the table value of 21.0261 at the level of significance 0.05 with the degrees of freedom 12. This shows that the result is significant. The hypothesis that free medical services do not have significant influence on productivity of senior secondary school teaches in Ekiti State of Nigeria is rejected. This means that free medical services do influence senior secondary school teaches productivity in Ekiti State of Nigeria.

Discussion of Results

From the analysis of the three hypotheses presented above, it is noted that all the respondents are not content with the compensation package which they presently earn in their various schools. Hence, all the questionnaire sampled copies retrieved indicated that teachers in Ekiti State Senior Secondary Schools would prefer to enhance their productivity through an increase in their basic salary, provision of official accommodation and housing loans, and free medical services.

Castetler (1981) indicates that the general purpose of the compensation process is to allocate resources for salaries, wages, benefits, and rewards in a manner that will attract and retain school staff with the skill called for. Ejiogu (1990), Fashina (1997), and Akinwunmi (2000) assert that compensation packages such as free medical services, housing allowances, financial benefits and a conducive environment retain workers and enable them to perform better.

However, from the above findings, the motivation of human resources will make them give their maximum output. This is in agreement with Castetler's (1981) indication of the purpose of compensation. It is, however, essential to point out at this juncture that training and motivation are intertwined, and one cannot do without the other. Also, extrinsic and intrinsic motivation must be interwoven in order to boost teachers' morale. Therefore, the management of Education in Ekiti State Schools should do more in the application of

motivational theories to enhance students' academic performance as well as the productivity of teachers.

It was also discovered from the study that without an effective compensation package for teachers, teaching as a profession will be uninteresting, and the final output of students will be deficient. It is, therefore, the sincere conclusion of the study that if employees are to be efficient on the job and their morale booster for effective performance, a lot needs to be done in terms of compensating the teachers by providing incentives and rewards commensurate to the job performed by the workers.

Recommendations

To ensure that planned compensational techniques achieve their goals, the following guidelines for effective motivation through compensation are hereby recommended.

- The Authority (the state government) must take a situational or contingency approach to the application of compensational techniques or compensational strategies.
- The Authority should study the personality, wants, and desires of individuals and incorporate these into planning for compensational strategies.
- Rewards should be related to performance, not to seniority or another non-merit-based criterion.
- The state government should provide all the educational equipment that will enhance the teaching and learning process, such as good and well-equipped libraries, laboratories, workshops, sports facilities, and so on.
- Workers should be promoted as at when due as this will motivate them to put in their best.
- In-service training, conference, seminars, and workshops should be organized from time to time for the staff to enhance their performance.
- The Ministry of Education, Parents and Teachers' Associations, and all the Agencies in charge of Teachers' welfare should motivate teachers extrinsically and intrinsically so that teachers can put in their best for better productivity and good academic performance of the students, which will, in turn, lead to the socioeconomic and political development of the students themselves, the society in which they live, and the country in general.

Conclusion

The study investigated the influence of compensation packages on the productivity of teachers in Ekiti State of Nigeria and discovered that compensation packages play a vital role in enhancing the productivity of teachers towards achieving educational goals, particularly in Ekiti State Schools and generally in the country's School System. Efforts should therefore be made by the government and school administrators to adopt result-oriented compensational techniques for teachers to achieve the school goals

References

Akinwunmi, F. S. (2000). Impact of Motivation and Supervision on teachers' productivity in Secondary Schools in Oyo State, Nigeria. An Unpublished Thesis (Ph.D.) submitted to the Faculty of Education, University of Ibadan.

- Alderfer, C.P.(1972). *Existence Relatedness and Growth: Human Needs in Organisational Settings*. New York: Free Press.
- Awoyinfa, J. O. (1996). Effect of Compensational Strategies on Job performance of personnel in Non-profit oriented sports organizations. Unpublished Master's Thesis, University of Lagos.
- Castetler, W. B.(1981).*The Personnel Function in Educational Administration*. Canada: Macmillan Publishing Company.
- Ejiogu, A. M. (1990). *School Personnel Management: A Nigerian Perspective*. Lagos: University Press.
- Fashina, S. A. (1997). Theories of Motivation and the Nigerian. In Ejiogor et al (Eds) *Managing the Nigerian worker*. Lagos: Longman (Nig.) Publishers Limited.
- Flippo E. B. (1994). *Personnel management* New York McGraw-Hill Book.
- Maslow, A.H. (1959). *Motivation and Personality*. New York: Haper and Row Publishing Company.
- McClelland, D.C. (1961). *The Achieving Society*. New Jersey: Van Nostrand Reinhold Company.
- Odunlami, A.O. & Asabi, A. (2014). The effect of compensation management on employees performance in the manufacturing sector: A case study of a reputable food and beverage industry in Akure, Ondo State. *International Journal of Applied Behavioural Economics, IJABE*, 1(3), 16-27.
- Olubusayo, F.H., Stephen, I.A. & Maxwell, O. (2014).Incentives packages and employees' attitudes to work: A study of selected government parastatals in Ogun State, Southwest, Nigeria. *International Journal of Research in Business and Social Science IJRBS*, 3(1), 63-74.
- Skinner, B. F. (1963). *Operant Behaviour*. New York: Appleton-Century-Crofts.

(MIS) CONCEPTIONS OF AFRICAN CULTURE AND AUTHORITY OF MEN IN SCHOOL GOVERNANCE PARTICIPATION: THE CASE OF THREE SELECTED EASTERN CAPE SCHOOLS GOVERNING BODIES (SGBS)

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Abstract

This paper shows how certain conceptions, misconceptions and perceptions about African culture provided the excuse for selected communities on the coast of Eastern Cape Province. The activities of SGBs flout, disturb and contradict the democratic values which the post-apartheid School Governing Bodies (SGBs) were meant to promote. In all three selected sites, African culture was explained to justify membership composition, and disproportionate power held by men, old women and the married. It was also observed that in some instances, culture was seen to be wrongly interpreted and thus misconceived. In this manner, the South African Schools Act of 1996, No. 84 was undermined under the pretext of the African culture. This paper portrays the dominance of the African culture in the selected sites and its interpretations that seem to disturb, complement, and contradict the democratic values and modernity that post-apartheid school governance was meant to promote. Data were collected using in-depth interviews, and participant observations. This study revealed that despite the dramatic political changes that began in 1994, culture, albeit misinterpreted, SGBs continue to exercise authority, even within the school decision-making bodies. It also revealed that the values espoused by South African School Act (SASA) and those explained to be in favour of African culture co-existed in these contexts. The paper shows that women exercised negotiations, and compromise while fulfilling community expectations.

Keywords: Culture, Modernity, School Governance, Traditional Leadership.

Introduction

There is evidence that rural local education is still influenced, albeit in many contentious ways, by African culture, particularly traditional leadership, and its ideas (Department of Education, 1996). For instance, the Chief was rated as having the biggest influence in schools in the Eastern Cape Rural Education Survey (Ibid). Despite South African School Acts (SASA's) silence over the function of traditional leaders in School Governing Bodies (SGBs), the new Land Ownership Legislation, is one of the studies that address culture, tradition, and traditional leadership. In his study, Ntsebeza (2006) points out that despite their involvement in apartheid, traditional leaders in rural South Africa not only survived but also appear to have attained previously unheard-of levels of influence. He concludes that because some of these traditional leaders are not authentic, rural South Africans continue to be treated like subjects. In another study, Logan (2008), notes the role of

traditional leaders in modern Africa, especially in modern African democracies, which she refers to as complex and multifaceted. Both papers (Ntsebeza, 2006 & Logan, 2008) acknowledge the complexities that come with African culture and traditional leadership in democratic South Africa. However, relatively few studies have examined African traditional leadership from the standpoint of educational leadership. Few from Europe and the West, however, have looked at the connection between traditional leadership and educational leadership.

Purpose of the Paper

This study, therefore, examined the relationship between African culture and tradition and modernity as exemplified in school governance bodies' composition membership and participation in debates and decision-making. In the context of this paper, tradition is a set of customs and beliefs that have been passed from one generation to the next over a long period. Modernity on the other hand is an age different from the pre-modern or tradition. The researchers' view is that culture is a bit complex and can be a space for revolutionary vision and transformation.

Exploring African Culture

What it means to be an African and African culture are complex and contested issues. The richness of African culture is deeply misunderstood, especially in the West. One of the reasons is that the rich African culture is mostly inaccessible since it is mainly oral and unwritten (Field, 2003). Also, Africans lost their real cultural and spiritual identity at the dawn of colonialism (Noleen, 2004). The situation was more complex in the case of South Africans who suffered colonialism and the trauma of apartheid (Ibid). The Apartheid policy, for instance, through the Bantustan policies, sought to impose African culture and tradition that only served to subjugate the African people (Noleen, 2004). In this way, the African culture and value system were reinvented and distorted by the oppressive system as a tool of oppression. Under such conditions, it became difficult for Africans to recognize and accept their own identity. Nevertheless, it did not render people any less African, but it did make them more secretive and apologetic about practices that were African (Noleen, 2004). For instance, modern religion and education rendered certain African practices and values, pagan, and therefore less civilized. The Africans were, for instance, forced to use "Christian names" instead of their indigenous names. Hence there is a call for the re-Africanization of Africans than Africanization (Nkomo, 2011). Culture has been examined by various authors in various ways. It is described as a collection of people who share abstract knowledge, world views, values and conventions, manners and customs, and orientations toward social and interpersonal relations that are taken for granted by members of a social group (De Klerk, 2000).

Even if culture is subject to debate Ntsebeza (2006) said, belonging to a certain culture makes people feel secure and at home. Feeling like a part of one or more groups is one of the structures that leads to a sense of security. This, as it has been used in the past, captures how religion, culture, ethnicity, and national identities interact (Berry et al., 2007). According to this viewpoint, culture may be more expansive than ethnic identification,

which denotes membership in a particular group that has a common genealogy, history, and traditions. From a developmental perspective, Hall (1996) notes that there are two models of thinking about cultural identity, which are the traditional and critical models.

According to Hall's classic paradigm of thinking about cultural identity, people who share a history and genealogy retain a single, shared culture that serves as a sort of collective "one true self" hidden within the many other, more surface-level or artificially imposed identities. Underneath the fluctuating divides and vicissitudes of our history, this model holds that our cultural identities are reflections of the shared historical experiences and cultural rules that give people solid, constant, and ongoing frames of reference and meaning. The second model of cultural identity, which Hall favours recognize that as well as the many points of similarity, there are also critical points of deep and significant difference which constitute 'what we are' or 'what we have become'. Identity, therefore, is not static," said, "rather it is something that each age and society re-creates... it is a historical, social, intellectual, and political process that takes place as a contest involving individuals and institutions (Noleen, 2004). Taking the line of thought that identities and culture cannot be thought of as rigid. Nyamnjoh (2005) refers to culture as a product of interactions which have diverse cultural points of departure. This means, there is always something old in the new even if the new cannot be reduced to the old (Nyamnjoh, 2005). This implies that even if a 'new' culture is introduced, the individual's old familial habits, especially those valued and rewarded, are more likely to guide his or her interaction with the 'new'. This therefore may be indicative that cultural identity evolves and progresses through stages.

Cook (2005) identifies the major principles of African cultural values to include: (i) a Sense of community life; (ii) a Sense of human relations; (iii) a Sense of compassion and hospitality; (iv) a Sense of respect for authority and the elders; (v) Gender distinctions (vi) Marriage and Fertility. All these principles are pointing in one direction.

Ubuntu is a way of life that is difficult to define (Broodryk, 2011). Ubuntu can be seen as the key to all African values and involves collective personhood and collective morality (Khoza, 2009). It is a social ethic, a unifying vision enshrined in the Zulu maxi "Umntu ngumntu ngabantu" a human being finds genuine human expression in human relationships with other humans-I am because we are (Noleen, 2004). In her address, Kunene (2009) refers to ubuntu as a way of life, ways of treating others and ways of behaving. Ubuntu is therefore a metaphor that embodies the significance of group solidarity in many African cultures (Noleen, 2004). Hence, we (individuals and the community become infused with each one of us (Noleen, 2004). Therefore, ubuntu values humanity, consultation as a value orientation, and interdependence as a value to dependence.

Principles of interconnectedness, respect and dignity, collectivism and solidarity, communal enterprise and leadership legitimacy are the cornerstone of Ubuntu. Littrell (2011) also notes that self-protection, in-group collectivism, consensus building and a "being your brother's keeper" type of humane orientation. As a result, Khoza (2009) has configured Ubuntu as a leadership theory. According to Khoza (2009), Ubuntu is a concept

that brings to the fore images of supportiveness, cooperation, and solidarity. It is the basis of a social contract that stems from but transcends the narrow confines of the nuclear family to be an extended kinship network, the community. With diligent cultivation, it should be extendable to business cooperation. Khoza, who is an entrepreneur, philosopher, and academic claims that he is the founder of the Ubuntu philosophy for business practices (Kunene, 2009). Kunene insists that the ubuntu management philosophy unites both cooperativeness and competitiveness within an iterative and openly communicative model. Also exploring Ubuntu as a leadership model. According to Broodryk (2011), renowned entrepreneur Sir Richard Branson stunned the corporate world by embracing a new human philosophy and style centred on a family-type firm where joy and even fun are promoted at work. Broodryk (2011) describes Ubuntu as a way of living those springs naturally from a positive outlook on life (Ibid). Oppenheim (2012) points out that Ubuntu is a spiritual ideal, nevertheless, and that as people, we should constantly strive to achieve it.

The notion of respect for the elders and authority in a typical African society is not uncommon and is another foundation for healthy relations among people (Teffo, 1999). The respect for elders and its practical effect on the maintenance of custom and tradition as well as the nearness of the elders to the ancestors. This respect and status are normally accorded to old men, and literature is silent about women. As in many instances in African culture the allocation of duties and responsibilities, according to status, and gender distinction played a role. Yet Noleen (2004). warns if we are to develop as a people, education requires that gender distinctions be minimised to those areas where such distinctions are vital. This respect in some cases can be relative to what we can find and admire in an elder. Hence Oppenheim (2012) notes that the notion of respect for the elder in the African tradition is not regulated by age alone. Social status, as well as position, may also call for observance of this type of respect between people of different categories.

The African people place high importance on compassion and hospitality, which is especially evident in rural areas (Oppenheim, 2012). Deep caring and understanding for one another are key components of compassion. Team members can work toward a common goal by being compassionate and understanding of one another. Every member of the group shares the weight while the organization is struggling. They show concern in both happy and sad times, which is why your joy is my pleasure, and your grief is my sadness.

Oppenheim (2012) points out, however, that these individuals shouldn't make money for themselves. When arguing for generosity and compassion as qualities associated with Ubuntu, points out that if a person is making monetary development and obtaining more than others, the surplus will be distributed to the less fortunate brothers and sisters. Africa does not permit some to sleep warmly while others are left out in the cold or that some feed while others suffer without (Ibid). Nelson Mandela is described by Oppenheim (2012) as saying that in the spirit of Ubuntu, travelling through a nation would not need to ask for food or drink when they arrived at a village. When he finally stops, the crowd feeds and amuses him. When Nelson Mandela was elected president of South Africa, he decided to

donate one-third of his salary to the Nelson Mandela Children's Fund, which he established to help underprivileged kids (Nussbaum, 2003). The valued values of kindness and hospitality should be extended especially to strangers.

Research Questions

1. What is the construction of SGB in the three locations?
2. Why are the forms of capital valued in the school governance members in the selected communities the way it forms?
3. How is the misconception of SGB formation seen as a birthright?

Methodology

The study focused on the interpretive paradigm. This paradigm is appropriate for this research because it is consistent with the different respondents' descriptions of their lived experiences in school governance participation. The study adopted a qualitative research approach because it shows in-depth research about human behaviour. The phenomenological research design was adopted in this study. The phenomenological investigation is concerned with what people experience and how they interpret their experiences about a phenomenon. The researchers used phenomenological design because the paper examines the conceptions/perceptions of African culture that provide an excuse for some members of the SGBs to flout, disturb and contradict the democratic values which post-apartheid school governance was meant to promote. Eight members of SGB were purposively selected for this study. Data were collected through unstructured as well as semi-structured, phenomenological interviews documentary analysis and observation. Each interview took, on average, 45 minutes and was tape-recorded with the respondents' permission. Where respondents (about two respondents) were uncomfortable with the use of the tape recorder, the researcher took notes and later translated them into English. Documentary analysis, which included the minutes of the SGB meeting, and the observation of the community and SGB meetings were also used. The observations identified and recorded modes of participation in different sites. The data were analyzed using a thematic method. It is a method of expressing data that also includes interpretation in the selection of codes and the formation of themes. The validity and trustworthiness of confirmability and transferability of the instruments were carried out.

Research Findings

The findings of this research are according to the themes below.

Theme 1: Construction of SGB membership in the three research sites

The SGB membership was 75% female across all sites because "the economically active men were gone in cities like Johannesburg and Cape Town." In these situations, women were left to "keep the fires burning." The composition of SGBs in the study appeared to bear out this reality. At times, their traditional identities as "homemakers" and those of school governors, clashed, as illustrated by a young married woman, Mrs Nosiqithi (pseudonym) from eMangxongweni Village. This young married woman "*umakoti*", reported discomfort when she had to make what (Mouffe, 2008) termed a "hegemonic ntervention" in favour of her identity as a school governor. She had to choose between her

traditional responsibility as a homemaker and that of being a school governor. There is evidence that women in African traditional homes are more powerful than men and that they are used to taking leadership roles, especially where the plight of children was concerned (Duku, 2006).

Although women dominated numerically, there was overwhelming evidence that the SGBs were structured in a gendered form with men dominating positions of authority. Discourses of masculinity, in comments such as that men ‘brought dignity’ to the SGB and were wiser’, and that ‘traditionally men have to lead’ were evident in how SGBs operated in the selected sites. However, it needs to be noted that even under such circumstances, women used a proxy agency to win, men who had the power, to act on their behalf to get the outcomes they (women) desired. For instance, even though men were considered “wiser”, women, through a proxy agency, communicated their decisions and desires through relative male figures. seemed more instrumental in most of the decisions taken. This may therefore suggest that women’s comments in favour of men’s leadership were just a technique to make men play along.

A total of 62% of the SGB population was above the age of 60 years. Some teachers in all the selected sites reportedly preferred elders as chairpersons as they were ‘respectful and obedient towards teachers and authority generally.’ Discourses defining elders as ancestral representatives were also used. The participation of the old, in all the sites, coupled with unemployment status, also suited the teachers’ schedules, as SGB meetings were reportedly held between eight in the morning and noon.

Nearly half (48%) of members of the SGBs were either illiterate or semi-literate. Generally, the women were more educated than their male counterparts, which may explain why all the SGB secretaries in the selected communities were women. Education was not regarded by the respondents as valued capital, but a minority (20%) did mention that education qualification for SGB members was important for participation in education-related issues. This may be elaborated further as they were in the SGB but felt that education was not important.

Theme 2: Forms of capital valued in the school governance members in the selected communities.

Even though married women were favoured to be among SGB members, they were not a homogenous group. Age seemed a further dividing factor. At EMangxongweni Village a young married woman, Mrs Nosiqithi (pseudonym), was reluctant to participate in meetings. She explained that men and older men actively challenged her. Her identity as a newly married woman whose husband was away in the mines meant she was expected to behave in a way that showed respect for the elders, especially men. She echoed.

Sometimes you feel as though what you are about to say is not right (Looks nervous). Sometimes even if I feel like saying something, I feel scared. She sometimes exercised agency when ‘I tell what I want to say to an old woman next to me and ask her to

say it on my behalf.’ The proxy agency even in the case of age and marriage seemed to be a strategy widely used.

The social space in school governance seemed to have a clear identity definition. Single or unmarried women felt like misfits and had to negotiate their participation in school governance activities. Their engagement was indirect: that is, through immediate or extended families. To some men, female single parenthood is a

‘...reflection of unruliness...they [single women] are disobedient as they do not have husbands to respect and therefore cannot participate.’

These accounts reflect the powerful influence of African traditions, which are often male-biased. The exclusion of single women may be interpreted in line with Logan’s observation that ‘tradition constitutes an anti-democratic or at best a non-democratic form of governance.

Theme 3: Birth-right

Traditional leadership seemed to be a dominant feature of school governance membership and participation in all three sites, particularly in one site. Some elderly men, who had links with traditional leadership, viewed their participation in school governance as a ‘birthright’. Mr Khanyo explained.

‘...I am an SGB member because I am a traditional leader; it is my birthright to participate in school governance...’.

Additionally, he has presided over the SGB for more than two terms. He also defined his participation in terms of his educational background, demonstrating how even this type of speech could be combined with modernity. He tried to justify his participation at one point by claiming his educational background. His presence and leadership, in his opinion, were essential to KwaMjingqi Village receiving Section 21 status, which the government had granted to all secondary schools in the Eastern Cape.

The weight of tradition was also strong in EMangxongweni Village, where Mr Sibonda, an (reportedly illiterate) SGB member, participated based on his traditional leadership status. This could be viewed as contradicting the notion that only the educated might participate in education-related activities.

Mr Sibonda reportedly ‘forced’ children to go to school, and sometimes ‘fined’ mothers who gave their daughters domestic chores that prevented them from attending school. This is another example of how tradition was made to exist side by side with modernity.

Even though there were signs of the Great Place promoting modernity, at EMangxongweni, it (the Great Place) also seemed to be reproducing traditional gender stereotypes. This was apparent in the community meetings’ seating arrangements, as well as the concentration of power in the men during the debates, despite the almost balanced gender representation in these meetings. Yet the presence of women in traditionally male social spaces of imbizo

may be indicative of these communities moving between modernity and tradition. It can imply that there is more space to debate culture and modernity in the middle ground rather than casting the debate either for modernity or for tradition as suggested by (Logan, 2008) in the context of land ownership and the role of the traditional leaders.

Conclusion

The subject of this article was an exploration of how the respondents made use of African culture and tradition in their school governance participation. The stance taken by this paper is that though the African culture and tradition can be seen to be in contradiction with the values and principles of democracy, as represented by school governance, the latter can still be used to navigate one's way to modernity (school governance participation). This, therefore, indicates the risk attached to bracketing identities as either modern or traditional. As in the case of this study, the respondents seemed to be operating from the third space, between modernity and culture.

This study shows the co-existence of modernity and tradition, with contradictions and tensions, where the logic of the tradition dictated the rules of engagement in school governance participation. Local people in the selected communities appeared to have adapted their political situation into a hybridized model. This paper adds a contribution to the ongoing debate about the role of traditional leaders in modern South Africa (Ntsebeza, 2006). This debate is particularly relevant in the researched communities, where Chieftaincy exerts the most influence daily. This is despite the alarm raised by some authors about the incompatibility of modernity and tradition (Ntsebeza, 2006). Despite the tensions and the contradictions, the respondents seemed to have used tradition and traditional leadership to promote and force school governance participation.

References

- Berry, J.W., Phinney, J. S., Sam, D.L. & Vedder, P. (2007). *Immigrant youth in cultural transition*, Mahwah, NJ: Lawrence Erlbaum Associates.
- Babbie, E. & Mouton, J. (2002). *The practice of social research*. Oxford: Oxford University Press.
- Broodryk, J. (2011). *Ubuntu African Life Coping Skills: Theory and practice*. Paper delivered at CCEAM Conference, 12-17 October 2011, Lefkosia, Cyprus.
- Cook, S.E. (2005). *Chiefs, Kings, Corporatization, and Democracy: A South African Case Study*. *Brown Journal of World Affairs*, Vol. 12 (1).
- Creswell, J.W. (2014). *A concise introduction to mixed methods research*. Sage Publications. California.
- De Klerk, V. (2000). *To be Xhosa or not to be Xhosa...That is the question*, *Journal of Multilingual and Multicultural Development*.
- Department of Education(1996a). *South African Schools Act*. Government Gazette Notice No. 84 of 1996. Pretoria: Government Printers.

- Duku, N. (2006). The exploration of parents' negotiations of their identities in school governance participation in six selected villages, unpublished PhD thesis, University of Cape Town.
- Field, J. (2003). *Social capital*, London: Routledge.
- Hall, S. (1996a) When was the 'post-Colonial'? Thinking at the limit, In I. Chambers & L. Curtis (Eds), *The Post-Colonial Question: Common Skies Divided Horizons*, London and New York, Routledge.
- Hall, S. (1996b). Introduction: Who needs 'Identity'? In S. Hall and P. Du Gay, *Questions of Cultural Identity*. London: SAGE Publications.
- Ismail, N. (1999). Integrating indigenous and contemporary local governance: Issues surrounding traditional leadership and consideration for post-apartheid South Africa, University of the Western Cape. PhD Thesis.
- Khoza, R.J. (2009). *African Leadership: People Solutions for African Challenges?* University of Pretoria, South Africa.
- Kunene, Z. (2009). *Ubuntu's* Keynote Address on behalf of Zandile Kunene.
- Lichtman, M. (2013). *Qualitative research for the social sciences*. Sage Publications.
- Littrell, R. (2011). Contemporary Sub-Saharan African managerial leadership research: some recent empirical studies, *Asia Pacific Journal of Business and Management*, 2(1), 65-91.
- Logan, C. (2008). Traditional Leaders in Modern Africa: Can democracy and the Chief co-exist? A comparative series of national public attitude surveys on democracy, markets and civil society in Africa, *Afro barometer*.
- Mabasa, T & Themane, J. (2002). Stakeholder participation in school governance in South Africa, *Perspectives in Education*, 20(3), 111-115.
- Mncube, V. (2009). Perceptions of the principal's role in the democratic governance in South Africa, *Journal of Educational Administration and History* 41(1) 29-43.
- Mouffe, C. (2008). Critique as Counter-Hegemonic Intervention. *The art of critique*.
- Myers, M.D. (2013). *Qualitative Research in Business and Management*, (2nd Edition), Los Angeles, 2013 SAGE.
- Naidoo, J. (2004). Educational Decentralization and School Governance in South Africa: *From Policy to Practice*. A Thesis Presented to the Harvard Graduate School of Education in Partial Fulfilment of the Requirements of Degree of Doctor of Education.

- Nkomo, S.M. (2011). A postcolonial *and* anti-colonial reading of ‘African’ leadership and management in organization studies: tensions, contradictions and possibilities, *Organization* 18(3), pages 365-386
- Ntsebeza, L. (2006). *Democracy Compromised: Chiefs and the politics of land in South Africa*, HSRC, Pretoria.
- Nyamnjoh, F.B. (2005). Expectations of Modernity in Africa or a Future in the Rear-view Mirror? *Journal of Southern African Studies*, Vol. 27 No. 2, pp 363-369.
- Noleen van Wyk (2004). School governing bodies: the experiences of South African educators. *South African Journal of Education*. 24(1) 49 – 54
- Nussbaum, B. (2003). African culture and Ubuntu: Reflections of a South African in America, *Perspectives*.
- Oppenheim, C.E. (2012). Nelson Mandela and the Power of Ubuntu, *Religion*, 3, 369-388.
- Sayed, Y. (1995). Educational policy developments in South Africa, 1990-1994: a critical examination of the policy of educational decentralization, with specific reference to the concepts of decentralization, participation, and power. PhD. Thesis, University of Bristol.

QUALITY ASSURANCE STRATEGIES, SCHOOL LOCATION AND UNIVERSAL BASIC EDUCATION INSTRUCTIONAL GOALS' ATTAINMENT IN JUNIOR SECONDARY SCHOOLS IN SOUTH-WEST, NIGERIA

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Abstract

This study was conducted to investigate the influence of quality assurance strategies and school location on the attainment of the UBE instructional goals in junior secondary schools in South-West, Nigeria. The descriptive research design of the ex-post facto type was used. while the population comprised 6 SUBEB Quality Assurance Directors, 2,140 principals, 42,964 teachers and 1, 810, 303 learners in junior secondary schools in South-West, Nigeria. Three states (Ogun, Oyo and Ekiti) were randomly selected out of the six states in South-West, Nigeria. 161 public junior secondary schools were randomly selected out of 1,070. 644 UBE goal attainment subject teachers were purposively selected while 3,220 learners were randomly selected. Three instruments were used, two questionnaires and one achievement test. The data collected were analyzed using Mean, Standard Deviation, Pearson Product Moment Correlation (PPMC) and t-test at 0.05 levels of significance. Findings revealed among others that the internal quality assurance strategy of monitoring was significantly related to the attainment of literacy, an internal inspection was significantly related to the attainment of literacy skills while an external inspection was also significantly related to the attainment of literacy. This study, therefore, concluded that if Nigeria is serious about achieving comprehensive learners' attainment of UBE instructional goals, sustainable deployment of quality assurance strategies should be prioritized. It was recommended among other things that the government should motivate junior secondary school learners to attain high UBE instructional goals through conditional grants, and deployment of quality assurance strategies should be intensified by school principals and other regulatory agencies.

Key Words: Quality assurance strategies, monitoring, inspection, supervision, evaluation, school location, instructional goals attainment

Introduction

Basic education is universally accepted as one of the crucial indicators for determining national literacy index and categorisation of nations as developed, underdeveloped or developing. This appeared to have accounted for some deliberate global and local actions by governments and private bodies towards the provision of qualitative and functional basic education for the young ones. Suffice it to say that Government and other relevant stakeholders are concerned about the full development of the potentials of the teeming populace. Interestingly, the Federal Government of Nigeria (FGN) through its National Policy on Education (NPE) revised in 2014 emphasised that basic schools are established to inculcate appropriate fundamental knowledge, skills and values into the young ones to

make them useful for themselves and the society at large. No wonder, Ojeleye (2020) noted that learners' proficiency in basic life skills' in basic schools appeared to be a must, being the foundation upon which other levels of education are built. Consequently, schools are under pressure to ensure that learners attain the minimum learning outcome set for the basic education sub-sector. Accordingly, the Federal Government of Nigeria (FGN) launched the Universal Basic Education (UBE) programme on 30th September, 1999. The programme was however given legal instrument in 2004 through the compulsory, free and universal basic education act, 2004. Essentially, four ambitious instructional goals of attaining minimum proficiency in literacy, numeracy, manipulative and civic skills were set for basic education learners under the UBE programme.

It thus appeared that the entire UBE programme revolved round the attainment of the aforementioned essential life skills by the learners. The UBE Act (2004) further outlines the methods of assessing learners' attainment level of the UBE instructional goals through the National Assessment of Learning Achievement in Basic Education (NALABE). This is expected to be conducted by the Universal Basic Education Commission (UBEC) which was established to oversee the entire UBE programme. The attainment of the UBE instructional goals of literacy, numeracy, manipulative and civic skills by basic education learners is usually expressed as performance index obtained by basic education learners in English Studies, Mathematics, Basic Science and Technology, and Social Studies/Civic Education and had been conducted by UBEC across the country in 2001, 2003, 2006, 2011 and 2017.

However, in what appeared to be at variance, UBEC (2015) noted with concern that the NALABE surveys it conducted on the four core subjects of English Studies, Mathematics, Basic Science and Technology, and Social Studies showed results which were far below the expected national average. Also, UNESCO (2020) observed that basic education learners in Nigeria and indeed sub-Saharan Africa are far below minimum proficiency in basic skills. In the same vein, UNICEF (2020) reported in a paper presented at the 2020 Nigeria's Annual Education Conference (NAEC) that 60% of basic education learners in Nigeria could not read while 80% could barely manipulate figures. Lately, UNICEF (2022) also noted with concern that on the average, 70% of school children are attending basic schools in Nigeria without learning the essential life skills.

The foregoing are worrisome manifestations threatening the integrity of the UBE programme in terms of learning outcome which had almost dashed the hope of education stakeholders on the ideal level of attainment of the instructional goals that were set for learners in the UBE programme. This ugly situation has led to serious public outcry and some Nigerians have raised certain questions including: What is the current UBE instructional goals attainment level in Nigeria? What strategies are employed to ensure quality assurance and attainment of UBE instructional goals? Are the learning outcomes in rural schools different from urban schools? These germane questions among others are thought provoking and essentially relevant to this study.

Consequently, the federal government through the NPE (2014) noted that there was the need for mechanisms to be put in place to ensure compliance with the minimum standards set for basic education in the free and compulsory education act, 2004. This is where the concept of education quality assurance and its relevant strategies are essential.

Accordingly, FGN (2014) noted that successful implementation of the UBE programme and attainment of high learning outcome in schools rested predominantly on the extent to which quality assurance are regularly deployed to foster strict adherence to the minimum standard of basic education in terms of adherence to curriculum, lesson delivery and school hygiene.

Interestingly, UBEC statutorily conducts quality assurance monitoring, inspection, supervision and evaluation distinctively in basic education institutions across the country at regular intervals. This crucial exercise is usually done in collaboration with the State Universal Basic Education Boards (SUBEBs), Local Government Education Authorities (LGEAs), Principals of Junior Secondary Schools and School Based Management Committee. Moreover, UBEC (2020) expatiated that the modern quality assurance strategies thrived under such terminologies as whole school evaluation (external evaluation) and school self-evaluation or self-review (internal evaluation), all aimed at producing an effective school and providing necessary support to bring about improvement in learning delivery and outcome.

Also, the FME (2016) stated that the new strategies employed in quality assurance of the UBE Programme were designed to allow basic schools evaluate themselves first and complete the School Self-Evaluation Form (SSEF) daily. After the school self-evaluation, the external evaluators visit the schools to validate the school self-evaluation report in line with the approved 8-key indicators of school effectiveness termly. At junior secondary school level, internal quality assurance strategies are expected to be deployed by the Principals daily using the school self-evaluation framework.

However, the external quality assurance evaluation involved teams of evaluators visiting schools through pre-arranged procedures. It is expected to be carried out termly by the Federal Ministry of Education, Universal Basic Education Commission, State Ministries of Education, State Universal Basic Education Boards (SUBEBs) and Local Government Education Authorities (LGEAs). Consequently, UNESCO (2015) noted that effective quality assurance activities guarantee confidence and certainty about a programme of study in terms of standard and quality of attainment of the set goal. Meanwhile, Moddibo (2014) who studied the influence of quality assurance supervision on Nigerian secondary school effectiveness concluded that quality assurance supervision is an indispensable variable in the teaching learning process as well as the overall attainment of learning objectives. Again, Ogunode, Adah, Wama and Audu (2020) attributed the current significant feat achieved in basic education delivery and outcome in Nigeria to the prevailing quality assurance deployment in basic schools.

In the same vein, UNICEF (2015) and UBEC (2022) concluded that quality assurance is a good check and balance system for basic education actors and the would have been no justification for the huge investment of government in basic education and quality assurance deployment, if learners are attending schools without learning the essential life skills. However, despite the laudable nature of the UBE quality assurance deployment in secondary schools, a study carried out by Ayara, Essia and Udah (2013) could not establish significant positive relationship between quality assurance and learning outcome in UBE implementation in Cross-River State. Also, a study carried out by Kinyanjui and Ordho (2014) showed results which were a little above average in English Studies, Pre-vocational

studies; Religion and national values and poor result in Mathematics despite deployment of quality assurance activities. However, Nwafor (2015) established that the internal and external quality assurance ratings about schools do not always correlate when compared, and that disparity existed in the instructional goals attainment of learners in rural and urban basic schools especially in Basic Science and Technology.

There are growing arguments among Nigerians to improve learners' level of acquisition and proficiency in basic literacy, numeracy, manipulative and civic skills by enhancing the quality assurance strategies of the UBE Programme. Therefore, in 2016, the federal government through the Federal Ministry of Education developed uniform quality assurance monitoring and evaluation instrument for basic schools nationwide. Also, 2% of UBEC's operational fund had been earmarked for quality assurance deployment to institutionalise effective and efficient quality assurance strategies at SUBEB and LGEA level. These steps appeared to be bold and promising. However, the challenge of low deployment of UBE quality assurance strategies to schools is still being experienced.

Moreover, there is an ongoing public debate among Nigerians that quality assurance strategies as well as attainment of instructional goals by learners in basic education institutions are usually based on school location. For instance, Denga (2017) stated that school location (rural or urban) is a strong determinant of students' instructional attainment level while Amadi (2018) also noted that school location remained a strong determinant for frequency of instructional supervision and learning outcome. Interestingly, school location (urban or rural) influenced allocation of resources in SUBEBs action plans for the deployment of quality assurance strategies. This factor is therefore crucial for this study.

It is crystal clear that the current status of the UBE instructional goals' attainment level is apparently unknown especially as the last NALABE published by UBEC was conducted last in 2017. In view of the foregoing, this study sought the influence of quality assurance strategies and school location on the attainment of UBE instructional goals in junior secondary schools in South-West, Nigeria.

Statement of the Problem

A large number of basic education learners in Nigeria are perceived to lack basic proficiency in reading, simple numeracy tasks and effective communication which is at variance with the UBE instructional goals of attaining minimum proficiency in literacy, numeracy, manipulative and civic skills, usually measured through proficiency in English Studies, Mathematics, Basic Science and Technology and Civic Education as outlined by the federal government for the beneficiaries of the UBE programme. This has led to public outcry as discussions remained active on the issue at different academic forums across the country. Although government and other relevant stakeholders in the education sector are under pressure to address this ugly trend, there are reservations that the national aspiration to produce citizens that are intellectually sound and responsible might be dashed following perceived low deployment of quality assurance strategies in schools. Also, past studies on the UBE programme had viewed quality assurance as one stop supervision without considering the contributions of the specific strategies of monitoring, inspection, supervision and evaluation. Consequently, the growing concern among Nigerians for reliable empirical studies on how to foster regular and functional deployment of quality

assurance strategies irrespective of school location for the attainment of the UBE instructional goals in Junior Secondary Schools led to the conduct of this study.

Research Questions

The following research questions were raised to guide the study:

- i. What is the level of learners' instructional goals' attainment of UBE in terms of literacy, numeracy, manipulative and civic skills in junior secondary schools in South-West, Nigeria?
- ii. To what extent are quality assurance strategies (Internal and External) frequently deployed to foster instructional goal attainment among junior secondary schools in South-West, Nigeria?

Hypotheses

In addition to the research questions above, the following hypotheses were formulated and tested:

H₀₁: Deployment of quality assurance strategies (internal and external in terms of monitoring, inspection, supervision, and evaluation) is not significantly related to UBE instructional goals attainment (Literacy, numeracy, manipulative and civic skills) in junior secondary schools in South-West, Nigeria.

H₀₂: There is no significant difference in instructional goals attainment of UBE based on the location of learners.

Methodology

The Descriptive research design of ex-post facto type was adopted in carrying out this study. The population comprised twelve (12) SUBEB Directors of Quality Assurance, 2,140 junior secondary school principals, 42,964 teachers and 1,810,303 learners in public junior secondary schools in South-West, Nigeria comprising; Ekiti, Lagos, Ogun, Ondo, Oyo and Osun States (2019 National Personnel Audit, validated in 2021).

The study adopted a multi-stage sampling procedure to estimate the study's sample size at state, local government and school levels. For stage one, 3 states (Ekiti, Ogun and Oyo) were randomly selected out of the 6 states in the south-west geo-political zone. Total enumeration (intact group) was used to select all the six SUBEB Directors of Education Quality Assurance or their equivalent. At stage two, a simple random sampling technique was used to select 28 out of the 69 local government areas in Ekiti, Ogun and Oyo States. At stage three, a stratified proportionate sampling technique was used to select 161 out of 1,070 Public Junior Secondary Schools representing 15% of Junior Secondary Schools available in the three selected States.

Further at stage three, total enumeration of Principals of the selected schools was performed since one Principal administered a Junior Secondary School. Still at stage three, simple random sampling technique was used to select 3,220 Junior Secondary School three (JSS 3) learners distributed at twenty (20) per school with 644 teachers of English Studies, Mathematics, Basic Science and Technology, and Civic Education purposively selected at four (4) per school based on the fact that the four subjects are used to assess the proficiency of learners in the four UBE instructional goals of literacy, numeracy, manipulative and

civic skills.

Three research instruments: self-developed questionnaires and achievement test titled: Internal Quality Assurance Strategies Questionnaire (IQASQ), External Quality Assurance Strategies Questionnaire (EQASQ) and Instructional Goals Achievement Test (IGAT) on English Studies, Mathematics, Basic Science and Technology and Civic Education. The instruments were validated by experts in Psychometrics and Scale development. The Reliability coefficients of 0.75, 0.75 and 0.84 were obtained for each of the three instruments respectively using alpha Crombach. The instruments were administered and retrieved with the help of fifteen research assistants.

Descriptive mean and standard deviation were used to answer research questions 1 and 2. Pearson Product Moment Correlation (PPMC) was used to test hypotheses 1 while t-test was used to test hypothesis 2 at 0.05 levels of significance.

Findings and Discussion

Research Question 1: What is the level of learners’ attainment of instructional goals of UBE in terms of literacy, numeracy, manipulative and civic skills in junior secondary schools?

Table 1

Level of Learners’ Instructional Goals Attainment of UBE in Literacy, Numeracy, Manipulative and Civic Skills

Skills	Level	Frequency (f)	% of Learners	Mean level	Std. Deviation
Literacy	High	660	20.5	6.04	1.892
	Moderate	1520	47.2		
	Low	920	28.6		
	Very low	120	3.7		
	Total	3220	100.0		
Numeracy	High	514	15.9	4.36	2.346
	Moderate	713	22.1		
	Low	1011	31.4		
	Very low	982	30.5		
	Total	3220	100.0		
Manipulative	High	518	16.1	4.24	2.188
	Moderate	482	14.9		
	Low	1527	47.4		
	Very low	693	21.5		
	Total	3220	100.0		
Civic	High	205	6.4	5.38	1.503
	Moderate	1635	50.8		
	Low	1342	41.7		
	Very low	38	1.2		
	Total	3220	100.0		

Source: *Researcher’s Field Study, 2022*

Decision Rule: The classification of respondents’ scores was evaluated at **10.0, 7.5, 5.0 and 2.5** as high, moderate, low and very low, respectively

Table 1 showed the mean levels of learners' instructional goals attainment of UBE in literacy, numeracy, manipulative and civic skills in upper public basic schools in South-West, Nigeria. The overall mean score of 6.04 (SD = 1.892) obtained by respondents indicated that junior secondary school learners possessed moderate level of literacy skills. In terms of UBE goal attainment of numeracy skills, the overall mean score of 4.36 (SD = 2.346) obtained by respondents indicated that junior secondary school learners possessed low level of numeracy skills.

As regards learners' manipulative skill, the overall mean score of 4.24 (SD = 2.188) obtained by respondents indicated that junior secondary school learners possessed low level of manipulative skills. In terms of UBE goal attainment of civic skills, the overall mean score of 5.38 (SD = 1.503) obtained by respondents indicated that junior secondary school learners possessed moderate level of civic skills.

Research Question 2: To what extent are quality assurance strategies (Internal and External) frequently deployed to foster instructional goals attainment among junior secondary schools in south-west, Nigeria?

Table 2

Frequency of Internal and External Deployment of Quality Assurance Strategies to Foster Instructional Goals Attainment in Junior secondary Schools in South-West, Nigeria

Internal Quality Assurance Strategies	N	Mean	S.D	Weighted Mean	Remark
Monitoring	161	28.85	4.679	4.12	Weekly
Inspection	161	28.90	5.014	4.13	Weekly
Supervision	161	24.75	5.140	4.12	Weekly
Evaluation	161	18.18	5.084	3.64	Fortnightly
External Quality Assurance Strategies					
Monitoring	161	24.96	5.658	3.57	Termly
Inspection	161	24.36	6.932	3.48	Annually
Supervision	161	20.75	6.151	3.46	Annually
Evaluation	161	17.09	4.741	3.42	Annually

Source: *Researcher's Field Study, 2022*

Weighted mean rating: Daily/Monthly: 4.50-5.00, Weekly/Termly: 3.50-4.49, Fortnightly/Annually: 2.50-3.49, Monthly/Biennially: 1.50-2.49, Termly/Never: 1.00-1.49

Table 2 revealed the extent to which quality assurance strategies (internal and external) have been deployed to foster instructional goals attainment among junior secondary schools in south-west, Nigeria. The weighted mean score of 4.12 recorded for internal monitoring indicated that internal monitoring quality assurance strategy was deployed by school principal on weekly basis to foster instructional goals attainment among junior secondary schools. The weighted mean score of 4.13 recorded for internal inspection

indicated that internal inspection quality assurance strategy was deployed on weekly basis to foster instructional goals attainment among junior secondary schools. The weighted mean score of 4.12 recorded for internal supervision indicated that internal supervision quality assurance strategy was deployed on weekly basis to foster instructional goal attainment among junior secondary schools. The weighted mean score of 3.64 recorded for internal evaluation indicated that internal evaluation quality assurance strategy was deployed fortnightly by school principal to foster instructional goals attainment among junior secondary schools.

With respect to external quality assurance strategies deployed by SUBEB/SMoE officials, results showed that the weighted mean score of 3.57 recorded for external monitoring indicated that external monitoring quality assurance strategy was deployed by SUBEB/SMoE officials on termly basis to foster instructional goals attainment among junior secondary schools. The weighted mean score of 3.48 recorded for external inspection indicated that external inspection quality assurance strategy was deployed on annual basis to foster instructional goals attainment among junior secondary schools. The weighted mean score of 3.46 recorded for external supervision indicated that external supervision quality assurance strategy was deployed on annual basis to foster instructional goals attainment among junior secondary schools. The weighted mean score of 3.42 recorded for external evaluation indicated that external evaluation quality assurance strategy was deployed annually by SUBEB/Some to foster instructional goals attainment among junior secondary schools

Hypothesis 1: Deployment of quality assurance strategies (internal and external monitoring, inspection, supervision and evaluation) is not significantly related to UBE instructional goals attainment (literacy, numeracy, manipulative and civic skills) in junior secondary schools in South-West, Nigeria.

Table 3
Pearson’s Correlation Coefficients between Internal Quality Assurance Strategies (Monitoring, Inspection, Supervision and Evaluation) of Instructional Goal Subjects and UBE Instructional Goals Attainment (Literacy, Numeracy, Manipulative and Civic Skills) in Junior secondary Schools

		Subjects															
		English Studies				Mathematics				Basic Science and Technology				Civic Education			
IG		IM	II	IS	IE	IM	II	IS	IE	IM	II	IS	IE	IM	II	IS	IE
A																	
L		.374	.205	.10	.07												
S		**	**	5	5												
N						.177	.14	.04	.04								
S						**	1	2	5								
M										.08	.03	.01	.02				
S										1	8	3	9				
C														.04	.07	.14	.05
S														2	7	7	2

Source: Researcher’s Field Study, 2022

N=161; IM= Internal monitoring, II= Internal inspection, IS= Internal supervision, IE= Internal evaluation, LS= Literacy skill, NS= Numeracy skill, MS= Manipulative skill, CS= Civic skill, IGA= UBE instructional goals attainment

* p is significant at 0.05

** p is significant at 0.01

Table 3 presented the correlation matrix between internal quality assurance strategies (monitoring, inspection, supervision and evaluation) of instructional goals subjects (English Studies, Mathematics, Basic Science and Technology and Civic Education) and UBE instructional goals attainment (literacy, numeracy, manipulative and civic skills) in junior secondary schools in South-West, Nigeria. The result indicated that internal monitoring of English Studies teachers was significantly related to UBE instructional goal attainment of learners' literacy skills ($r = 0.374, p < 0.05$). Internal inspection of English Studies teachers was significantly related to UBE instructional goal attainment of learners' literacy skills ($r = 0.205, p < 0.05$). Internal supervision of English Studies teachers was not significantly related to UBE instructional goal attainment of learners' literacy skills ($r = 0.105, p > 0.05$). Internal evaluation of English Studies teachers was not significantly related to UBE instructional goal attainment of learners' literacy skills ($r = 0.075, p > 0.05$).

The results on Table 3 also indicated that internal monitoring of Mathematics teachers was significantly related to UBE instructional goal attainment of learners' numeracy skills ($r = 0.177, p < 0.05$). Internal inspection of Mathematics teachers was not significantly related to UBE instructional goal attainment of learners' numeracy skills ($r = 0.141, p > 0.05$). Internal supervision of Mathematics teachers was not significantly related to UBE instructional goal attainment of learners' numeracy skills ($r = 0.042, p > 0.05$). Internal evaluation of Mathematics teachers was not significantly related to UBE instructional goal attainment of learners' numeracy skills ($r = 0.045, p > 0.05$).

The results on Table 3 also indicated that internal monitoring of Basic Science and Technology teachers was not significantly related to UBE instructional goal attainment of learners' manipulative skills ($r = 0.081, p > 0.05$). Also, internal inspection of Basic Science and Technology teachers was not significantly related to UBE instructional goal attainment of learners' manipulative skills ($r = 0.038, p > 0.05$). Internal supervision of Basic Science and Technology teachers was not significantly related to UBE instructional goal attainment of learners' manipulative skills ($r = 0.013, p > 0.05$). Internal evaluation of Basic Science and Technology teachers was not significantly related to UBE instructional goal attainment of learners' manipulative skills ($r = 0.029, p > 0.05$).

The results on Table 3 also indicated that internal monitoring of Civic Education teachers was not significantly related to UBE instructional goal attainment of learners' civic skills ($r = 0.042, p > 0.05$). Internal inspection of Civic Education teachers was not significantly related to UBE instructional goal attainment of learners' civic skills ($r = 0.077, p > 0.05$). Internal supervision of Civic Education teachers was not significantly related to UBE instructional goal attainment of learners' civic skills ($r = 0.147, p > 0.05$). Internal

evaluation of Civic Education teachers was not significantly related to UBE instructional goal attainment of learners' civic skills ($r = 0.052, p > 0.05$).

The above results mean that the null hypothesis one which stated that deployment of quality assurance strategies (internal monitoring, inspection, supervision and evaluation) is not significantly related to UBE instructional goals attainment (literacy, numeracy, manipulative and civic skills) in junior secondary schools in South-West, Nigeria was rejected. This means that deployment of quality assurance strategies (internal monitoring and inspection of English Studies and Mathematics teachers) was significantly related to UBE instructional goals attainment of learners' literacy and numeracy skills in junior secondary schools in South-West, Nigeria.

Table 4

Pearson's Correlation Coefficients between External Quality Assurance Strategies (Monitoring, Inspection, Supervision and Evaluation) and UBE Instructional Goals Attainment (Literacy, Numeracy, Manipulative and Civic Skills) in Junior secondary Schools

	M	I	S	E	LS	NS	MS	CS
Monitoring (M)	1							
Inspection (I)	.739**	1						
Supervision (S)	.622**	.759**	1					
Evaluation (E)	.591**	.749**	.767**	1				
Literacy (LS)	.169*	.181*	.258**	.252**	1			
Numeracy (NS)	.220**	.199*	.266**	.277**	.450**	1		
Manipulative (MS)	.408**	.303**	.292**	.284**	.517**	.339**	1	
Civic (CS)	.280**	.216**	.193*	.181*	.518**	.161*	.669**	1

Source: Researcher's Field Study, 2022

* p is significant at 0.05

** p is significant at 0.01

Table 4 presented the correlation matrix between external quality assurance strategies (monitoring, inspection, supervision and evaluation) and UBE instructional goals attainment of learners' literacy, numeracy, manipulative and civic skills in junior secondary schools in South-West, Nigeria. The results indicated that external monitoring was significantly related to UBE instructional goal attainment of learners' literacy skills ($r = 0.169, p < 0.05$). External monitoring was significantly related to UBE instructional goal attainment of learners' numeracy skills ($r = 0.220, p < 0.05$). It was also found that external monitoring was significantly related to UBE instructional goal attainment of learners' manipulative skills ($r = 0.408, p < 0.05$). It was also found that external monitoring was significantly related to UBE instructional goal attainment of learners' civic skills ($r = 0.280, p < 0.05$).

The results also indicated that external inspection was significantly related to UBE instructional goal attainment of learners' literacy skills ($r = 0.181, p < 0.05$). External inspection was significantly related to UBE instructional goal attainment of learners' numeracy skills ($r = 0.199, p < 0.05$). It was also found that external inspection was significantly related to UBE instructional goal attainment of learners' manipulative skills ($r = 0.303, p < 0.05$). It was also found that external inspection was significantly related to UBE instructional goal attainment of learners' civic skills ($r = 0.216, p < 0.05$).

The results also indicated that external supervision was significantly related to UBE instructional goal attainment of learners' literacy skills ($r = 0.258, p < 0.05$). External supervision was significantly related to UBE instructional goal attainment of learners' numeracy skills ($r = 0.266, p < 0.05$). It was also found that external supervision was significantly related to UBE instructional goal attainment of learners' manipulative skills ($r = 0.292, p < 0.05$). It was also found that external supervision was significantly related to UBE instructional goal attainment of learners' civic skills ($r = 0.193, p < 0.05$).

The results also indicated that external evaluation was significantly related to UBE instructional goal attainment of learners' literacy skills ($r = 0.252, p < 0.05$). External evaluation was significantly related to UBE instructional goal attainment of learners' numeracy skills ($r = 0.277, p < 0.05$). It was also found that external evaluation was significantly related to UBE instructional goal attainment of learners' manipulative skills ($r = 0.284, p < 0.05$). It was also found that external evaluation was significantly related to UBE instructional goal attainment of learners' civic skills ($r = 0.181, p < 0.05$).

The above results mean that the null hypothesis three which stated that deployment of quality assurance strategies (external monitoring, inspection, supervision and evaluation) is not significantly related to UBE instructional goals attainment (literacy, numeracy, manipulative and civic skills) in junior secondary schools in South-West, Nigeria was rejected. This means that deployment of quality assurance strategies (external monitoring, inspection, supervision and evaluation) was significantly related to UBE instructional goal attainment of learners' literacy, numeracy, manipulative and civic skills in junior secondary schools in South-West, Nigeria.

Hypothesis 2: There is no significant difference in instructional goals attainment of UBE based on school location of learners.

Table 5

T-test of Difference in Instructional Goals Attainment of Learners' Literacy, Numeracy, Manipulative and Civic Skills in Rural and Urban Schools

IGA	School location	N	Mean	S.D	df	t	Sig.	Remark
Literacy skill	Rural	97	6.08	1.737	159	.376	.707	Not Rejected
	Urban	64	5.97	2.117				
Numeracy skill	Rural	97	4.15	2.245	159	-1.432	.154	Not Rejected
	Urban	64	4.68	2.474				

Manipulative skill	Rural	97	4.19	2.005	159	-.335	.738	Not Rejected
	Urban	64	4.31	2.453				
Civic skill	Rural	97	5.33	1.342	159	-.482	.630	Not Rejected
	Urban	64	5.45	1.727				

Source: Researcher's Field Study, 2022

IGA= UBE instructional goals attainment

Table 5 showed the *t-test* results of difference in instructional goals attainment of learners' literacy, numeracy, manipulative and civic skills in rural and urban schools in upper public basic schools in South-West, Nigeria. It was discovered that there was no significant difference between literacy skills of learners in rural and urban schools ($t = 0.376, df = 159, p > 0.05$). It was also found that there was no significant difference between numeracy skills of learners in rural and urban schools ($t = -1.432, df = 159, p > 0.05$). Results also showed that there was no significant difference between manipulative skills of learners in rural and urban schools ($t = -0.335, df = 159, p > 0.05$). Also, the difference between civic skills of learners in rural schools and urban schools was not significant ($t = -0.482, df = 159, p > 0.05$).

The above results mean that the null hypothesis four which stated that there is no significant difference in instructional goal attainment of UBE based on school location of learners was not rejected. This means that UBE instructional goals attainment of learners in terms of literacy, numeracy, manipulative and civic skills in rural and urban schools did not significantly differ.

Discussion of the Findings

The results of research question one showed that the instructional goals attainment of learners in upper junior secondary school learners was low in terms of literacy, numeracy, manipulative and civic skills. These results corroborated UNICEF's (2020) report that 60% of basic education learners in Nigeria could not read while 80% could barely manipulate figures and aligned with the position of UNESCO (2020) that learners in Nigeria and sub-Saharan Africa are far below target and standard in terms of minimum proficiency in basic skills especially literacy and numeracy. Again, the results reaffirmed the recent submission of UNICEF (2022) that about 70 percent of basic education learners in Nigeria are attending schools without learning the essential life skills of literacy, numeracy, manipulative and civic.

With regard to research question two, the results showed that internal quality assurance strategies were deployed by principals weekly and fortnightly while external quality assurance strategies were deployed termly and annually to foster instructional goal attainment among junior secondary schools in south-west, Nigeria. This result reechoed FGN (2014) declaration that successful implementation of the UBE programme rested predominantly on the extent to which quality assurance strategies are regularly deployed in schools to ensure that stakeholders adhered strictly to the minimum standard of basic education and high level of attainment of the UBE instructional goal. The result however negated the position of UBEC (2015) that internal quality assurance are expected to be

deployed daily by principals of basic schools while external quality assurance undertaken by UBEC, SUBEB and LGEA are expected to be deployed termly.

The Pearson's Correlation Coefficients between internal quality assurance strategies (monitoring, inspection, supervision and evaluation) of instructional goal subjects and UBE instructional goals attainment (literacy, numeracy, manipulative and civic skills) in Junior secondary Schools in South-West, Nigeria showed that deployment of quality assurance strategies (internal monitoring and inspection of English Studies and Mathematics teachers) was significantly related to UBE instructional goals attainment of learners' literacy and numeracy skills in junior secondary schools in South-West, Nigeria

Also, the results of Pearson's Correlation Coefficients between external quality assurance strategies (monitoring, inspection, supervision and evaluation) of instructional goal subjects and UBE instructional goals attainment (literacy, numeracy, manipulative and civic skills) in junior secondary Schools in southwest, Nigeria showed that deployment of quality assurance strategies (external monitoring, inspection, supervision and evaluation) were significantly related to UBE instructional goals attainment of learners' literacy, numeracy, manipulative and civic skills in junior secondary schools in South-West, Nigeria. The results are in line with the position of UNESCO (2015) that effective quality assurance activities guaranteed confidence and certainty about a programme of study in terms of standard and quality of attainment of the set goals. The results also confirmed the position of Ogunode, Adah, Wama and Audu (2020) which attributed the current significant feat achieved by basic education learners in terms of instructional outcome to quality assurance practices in basic schools. The results however negated the study conducted by Ayara, Essia and Udah (2013) which could not establish a significant positive relationship between quality assurance and learning outcome in UBE implementation in Cross-River State.

The results of *t-test* of difference in Instructional Goals Attainment of Learners' Literacy, Numeracy, Manipulative and Civic Skills in Rural and Urban Schools showed that UBE instructional goals attainment of learners in terms of literacy, numeracy, manipulative and civic skills in rural and urban schools did not significantly differ. This result corroborated the submission of UBEC (2015) that urban and rural schools enjoy equal attention in terms of provision of basic school infrastructures and therefore they are expected to produce high learning outcome irrespective of school location. The result however negated the position of Denga (2017) that availability of facilities and level of academic attainment of learners are likely to differ in rural and urban schools due to differences in school location. The result also negated the submission of Amadi (2018) that distribution of teachers and learning materials as well as consideration of learners' academic attainment is usually based on school location.

Conclusion

This study concluded that if Nigeria is really serious about achieving comprehensive learners' attainment of UBE instructional goals in basic schools, quality assurance strategies must be prioritized and regularly deployed irrespective of school location.

Recommendations

Based on the findings of this study, the following recommendations are hereby suggested:

- i. Government should motivate learners to achieve full attainment of the UBE instructional goals through conditional grants.
- ii. School Principals should ensure that internal quality assurance strategies are deployed daily while UBEC, SUBEBs and LGEAs should ensure that external quality assurance strategies are deployed termly,
- iii. UBEC/SUBEB should deploy UBE quality assurance strategies proportionately in all basic schools irrespective of school location.
- iv. Government should deepen inclusive participation by non-state actors in quality assurance activities in basic schools.

References

- Amadi, E.A. (2018). School Location as a Predictor of Achievement in Reading among Learners in Secondary Schools. Retrieved from <https://url.org/core.ac.uk.pdf>
- Ayara, N., Essia., U, & Udah, U. (2013). The universalization of basic education in Nigeria: the Cross River State experience. *Wood Pecker Journal of Public Administration*, Vol. 1(1), 007-019.
- Denga, D.I. (2017). Effect of School Location on Students' Academic Achievements in Senior Secondary Schools. *LUMAT International Journal on Mathematics, Science and Technology Education*, Vol. 9 (1), 18-27.
- Federal Government of Nigeria (2014). National Policy on Education (NPE) Federal Ministry of Education, Nigeria. Retrieved from www.benupdate.com/education.gov.ng
- Federal Ministry of Education (2016). National Education Quality Assurance Handbook for Basic and Secondary Education in Nigeria. National-Education-Quality-Assurance-Handbook. Federal Ministry of Education, 1-113
- Kinyanjui, G.N. & Orodho, .A.J. (2014). Influence of Headteachers leadership styles and pupils academic performance in Kenya Certificate of Primary Education Examinations, in Dagoretti District, Nairobi, Kenya. *Journal of Education and Practice*, Vol.5 (18) 64-70.
- Modibbo, A. & Isa, Y. K. & (2014). The supervisor's role for improving the quality of teaching and learning in Nigeria secondary school educational system. *International Journal of Education and Research*, Vol. 2 (8), 1-53.
- Nwafor C.E. (2015). Comparative Study of Students' Academic Performance in Junior Secondary School Certificate Basic Science in Public and Private Secondary Schools in Ebonyin, *Academic Discourse International Journal*, Vol.6 (1), 307-320. Retrieved from <https://scholar.google.com>
- National Personnel Audit (2019). 2018 National Personnel Audit Report. Federal Ministry of Education. Retrieved from <https://www.education.gov.ng>
- NPE (2014). Importance of Basic Education. Federal Republic of Nigeria, 7th Edition, April 30 2014. Retrieved from www.issuu.com

- Ogunode, N. J., Adah S., Wama, P. & Audu, E. (2020). Monitoring and Evaluation of Education in Nigeria: Challenges and Ways Forwards. *Middle European Scientific Bulletin*, ISSN 2694-9970, Vol. 5, 1-10.
- Ojeleye, J A, (2020). The future of Education in Nigeria: Budgetary Allocation as an Albatross. *International Journal of Advanced Academic Research in Arts, Humanities and Education* ISSN: 2488-9849 Vol. 6, Issue 5, 20-28.
- Universal Basic Education Act (2004). Compulsory, Free Universal Basic Education, Act No. 1004{26th May,2004] enacted by the National Assembly of the Federal-Republic of Nigeria-
- UBEC.(2015). National Assessment of Learning Achievement in Basic Education in Nigeria. ISBN: 978-978-52091-4-3. Retrieved from www.ubeconline.com
- UBEC (2020). *Resource Material for the Training of Quality Assurance Officers*, UBEC, Abuja. ISBN: 978-978-52091-0-5, 1-101
- UNESCO (2015). Rethinking education: towards a global common good. Retrieved from <https://www.unevoc.unesco.org>
- UNESCO (2020). Education in Africa. Retrieved from www.unesco.org/en/topic/education-africa
- UNICEF (2020). Sustainable funding of Education, paper presented at the 2020 Nigeria's Annual Education Conference (NAEC). Retrieved from <https://www.iiep.unesco.org>
- UNICEF(2015). Annual Results Report 2015. Retrieved from <http://www.unicef.org>
- UNICEF (2022). 70% of Nigerian School Children not Learning, Vanguard, April 8, 2022. Retrieved from www.vanguardngr.com

THE ROLE OF RURAL HIGHER EDUCATION INSTITUTIONS IN LEADING SOCIETAL TRANSFORMATION THROUGH SUSTAINABLE INITIATIVES

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Abstract

In recent times, higher education institutions' role has evolved from passive knowledge creation to a more proactive and engaged presence within their regions. While some of the roles of HEIs now require the transformation of the society toward sustainability through their education curriculum, governance structures, research, and other outreach activities, lack of vision and policy initiatives has been a major stumbling block to the realisation of HEIs contemporary goals. It, therefore, becomes important to examine the role that rural higher education institutions play in leading societal transformation through sustainable initiatives. Underpinned by an interpretivist paradigm, the study employed a qualitative research approach and a case study design. The study population comprises university management from which data was generated through an in-depth interview with three deans of the faculty, three faculty managers, and three heads of department in a rural university. Data gathered was analysed thematically, and all ethical issues, such as confidentiality, anonymity, and privacy of the participants, were respected. Research findings revealed that higher education institutions play a significant role in leading societal transformation through capacity building, the provision of work-integrated learning opportunities, and encouraging stakeholders' participation in self-sustenance initiatives, amongst many others. However, there is still a lot that rural HEIs could do in terms of training programmes on local partnerships. Hence, it was recommended that HEIs make its expertise more publicly accessible in order to continue supporting various local sustainability activities in a more organized manner.

Keywords: education, environmental challenges, leadership, sustainability, transformation.

Introduction

The dedication of academics and faculty is necessary for learning transformation in education for sustainability. This is because, change in methods and content is possible with their efforts, drive, and creative ideas (Leal Filho, et al., 2019). Thus, by providing its graduates with the skills needed to live in a sustainable future, educational institutions may help bring about the transition that is necessary for sustainability to take hold (Kioupi & Voulvoulis, 2022). In a similar context, higher education institutions can also play an important role in society by equipping upcoming professionals with the knowledge and competencies—that is, the competencies—needed to address urgent problems like climate change, violent conflict, and health emergencies that society is currently facing (Rieckmann, 2012; Kioupi & Voulvoulis, 2022). As a result, it is crucial for higher education to incorporate sustainability principles into its curricula. According to Peer and Stoeglehner (2013), higher education institutions can prioritize two key actions if they want

to function as change agents and actively participate in sustainable development at the regional level. First, they can tailor educational programs by developing curricula in collaboration with local communities to meet local and regional needs. Secondly, universities can direct or participate in collaborative research projects (such as participatory research) to collaborate and empower local communities (i.e. equitable bilateral/multilateral information exchange) (Peer & Stoeglehner, 2013; Kioupi & Voulvoulis, 2022).

Therefore, organizations like higher education institutions need to make a systematic transformation in order to achieve sustainability, which requires re-evaluating the silo mentality (Sterling, Maxey, & Luna, 2013). This can aid in fostering synergies between academic responsibilities and addressing the difficulties of multidisciplinary work, including teaching and research (Shiel & Williams, 2015; Blanco-Portela, Benayas, Pertierra & Lozano, 2017). In addition to addressing the difficulties of multidisciplinary work, including teaching and research, this can serve to foster synergies between university responsibilities (Hugé, Block, Waas, Wright, & Dahdouh-Guebas, 2016). To successfully integrate sustainability into higher education institutions (HEIs), “an overall vision, an increasing need for change that is felt by all the stakeholders, resources to support the process, and short-term gains that can be conveyed” are all necessary (Blanco-Portela, Benayas, Pertierra, & Lozano, 2017, p. 2-3). This is why researchers argue for interdisciplinary and transdisciplinary approaches (Sterling, 2013), the blending of theory and practice (Caird & Roy, 2019), ethical conversations, and reflections (Biedenweg, Monroe, & Oxarart, 2013; Howlett, Ferreira, & Blomfield, 2016), and the adoption of critical thinking (Wooltorton, et al., 2015; Howlett, Ferreira, & Blomfield, 2016), if higher education institution is to transitions toward sustainability.

The significance of transformation has been acknowledged by education research since it offers the chance to rethink and re-evaluate what constitutes appropriate and efficient educational approaches (Hoover & Harder, 2015; Leal Filho, et al., 2019). However, despite the significance of change in higher education institutions, little research has examined how rural higher education institutions might lead societal transformation through sustainable initiatives. Hence, the present study responds to this gap.

Sustainability Initiatives in the Higher Education Institution Domain

In the past, some universities have been employed as tools of political influence to direct economic growth, while some higher education institutions were specifically established to hasten regional economic and social growth (Peer & Penker, 2016; Leal Filho, et al., 2019). Particularly in terms of the local labour market and economy, the role of HEIs has been successful. However, large public universities typically have a greater influence on regional sustainable development programs than their smaller counterparts due to their size and prominence (Mosier, 2015). Notwithstanding, there is evidence of rising expectations for universities to participate in and support decision-making processes (Breznitz & Feldman, 2012; Leal Filho, et al., 2019). In recent times, universities now play a more active and engaged role in their communities as opposed to just being passive knowledge creators (Peer & Penker, 2016). As a result, some higher education institutions now collaborate with businesses and the government and also get involved in social, cultural,

and ecological issues (Leal Filho, et al., 2019; Olawale, Mncube, Ndondo, & Mutongoza, 2022).

Similarly, a growing number of HEIs are working to incorporate sustainable development (SD) into all aspects of their operations, including instruction, research, community engagement, operations, assessment and reporting, university collaboration, institutional framework, and campus activities (Lozano et al., 2013; Blanco-Portela et al., 2017). Through university administration, campus greening, institutional policies, and the involvement of the university community, other institutions are attempting to incorporate Sustainable Development (Wals, 2014; Blanco-Portela, Benayas, Pertierra, & Lozano, 2017). These initiatives have included things like actively participating in regional development, reducing greenhouse gas emissions, and encouraging academic leadership and dedication (Dlouhá, Huisingh, & Barton, 2013; Klein-Banai & Theis, 2013).

Recently, an approach known as organizational change management for sustainability (OCMS) has received more attention in the debate on higher education for sustainable development (HESD) (Blanco-Portela, Benayas, Pertierra, & Lozano, 2017). This involves the development of a campus sustainability network (Kurland, 2011); the execution of a sustainable development policy (Gudz, 2004); the function of certification in promoting change towards sustainability (Cooper, Parkes, & Blewitt, 2014); the complexity of organizational change for SD (Hoover & Harder, 2015); incorporation and institutionalization into the systems of HEIs (including obstacles to change and how to overcome them) (Lozano, 2006); and the factors that influence and hinder the adoption of SD in higher education (Blanco-Portela, Benayas, Pertierra, & Lozano, 2017).

However, despite several ongoing debates in higher education for sustainable development (HESD), Benn, Edwards and Williams (2014) argue that sustainability reforms in higher education institutions must go beyond “technocentric” adjustments and management initiatives which address “soft” organizational concerns, such as values, visions, philosophies, policies, employee empowerment, and change management techniques. Universities should function in this new world as knowledge institutions that foster critical thinking rather than only as teaching organizations that disseminate information (Leal Filho, et al., 2019). Similarly, Žalėnienė and Pereira (2021) added that a strong organizational culture must be built if higher education institutions are to fulfill their role as sustainability models. Therefore, to achieve these, the fundamental societal presumptions must be questioned by modern educational institutions (Howlett, Ferreira, & Blomfield, 2016).

Theoretical Framework

This study is underpinned by the Institutional theory by John Meyer and Brian Rowan in 1977. According to Carroll (2016), the foundations of institutional theory as it is today understood was formed between 1977 and 1983 as part of a larger attempt to understand the factors that contribute towards a successful and long-lasting organizational performance. The purpose of institutional theory is to give a multi-organizational framework for understanding the methods, causes, and consequences of organizational behavior (Carroll, 2016; David, Tolbert, & Boghossian, 2019). The theory also provides

an understanding of corporate reputation and legitimacy for public relations practitioners (Carroll, 2016). This organizational thinking strategy fits well with academics' growing interest in investigating environmental relations as the sources of organizations' actions and with a growing body of work on organizational decision-making that emphasized the inherent constraints on decision-maker's capacity to make highly rational decisions (David, Tolbert, & Boghossian, 2019).

This theory is relevant to the study because it allows one to assess how higher education institutions are affected by large-scale changes. Since it offers profound insights into the factors influencing how universities are designed and operated, this theory has been widely embraced in the higher education sector (Cai & Mehari, 2015; Gonzales & Ayers, 2018; Ramagopalan et al., 2019; David, Tolbert, & Boghossian, 2019). The institutional theory also becomes relevant for this study because it sheds light on the coercive, mimetic, and normative pressures on universities that result in change at all levels. The single question that resonates through this study is: How do rural higher education institutions lead societal transformation through sustainable initiatives?

Methodology

Research Paradigm

The interpretivist paradigm serves as the study's paradigm since it is more focused on context-related in-depth variables and aspects, given that it regards humans as unique from physical phenomena because they may have deeper meanings and cannot be researched in the same way (Alharahsheh & Pius, 2020). An interpretivist paradigm is found to be appropriate because it is more concerned with providing background knowledge than making judgments about reality (Creswell & Creswell, 2018). As such, this paradigm allows the researchers to gain a deeper insight into how rural higher education institutions can contribute towards societal transformation through education for sustainable development.

Research Approach

For the study, a qualitative research approach was used to acquire a better understanding of the topic being studied. Qualitative research, which is less generic, aims to offer a particular knowledge of a phenomenon based on persons experiencing it. Also, qualitative research aims to gain a complete understanding of a certain scenario through in-depth exploratory studies that allow for the identification of high-quality responses throughout the research (Alharahsheh & Pius, 2020). The qualitative approach was chosen for this study due to its adaptability and emphasis on maintaining rich meaning when interpreting data on how rural higher education institutions can contribute towards societal transformation through education for sustainable development.

Research Design

Based on the use of a qualitative research approach, the study adopted a case study design in order to gather in-depth information on how rural universities can lead societal transformation through sustainable initiatives in a world that is becoming more unpredictable. The study made use of a case study design because it closes in on reality

and enables the researchers to test beliefs about phenomena as they actually occur in practice (Flyvbjerg, 2006; Creswell & Creswell, 2018).

Population, Sample, and Sampling Technique

The population consists of the deans of the faculty, faculty managers, and the heads of the departments at a rural higher education institution. The sample for the study was three (3) deans, three (3) faculty managers, and three (3) heads of the department, making a total of nine (9) participants from three faculties in which the participants were purposively selected. A purposive sampling technique was found suitable for the study because it allows the researchers to use their expertise to choose specific participants that will help the study meet its goals (Cohen, Manion, & Morrison, 2018).

Data Collection Instrument and Data Trustworthiness

For this study, data was gathered through a semi-structured interview with the study's participants. A semi-structured interview was found appropriate for the study because it provides an adequate chance to elicit further information from the subject or explore a different line of inquiry that has been stimulated by what the interviewee is saying (Creswell, 2014; Datko, 2015). Data trustworthiness was ascertained through the triangulation of the unit of analysis. According to Denzin (1978), triangulation, or the use of several methods during data collection, is a strategy that helps researchers rise beyond the individualistic biases that result from using only one methodology. Roulston (2018) posit that triangulation could be through a method, investigator, participants, theory, and data that qualitative researchers can apply in naturalistic inquiry. In addition, data triangulation could be in terms of time, space, and person (Denzin, 1978; Roulston, 2018). Hence, for this study, triangulation of the unit of analysis (persons/participants) was done.

Data Analysis Technique

This study employed a thematic data-analysis approach, which consists of six steps: data collection, categorization, theme and pattern development, data coding, testing of emergent knowledge, seeking for alternative explanation(s), and report writing (Clarke, Braun and Hayfield, 2015). Participants were divided into separate groups according to their managerial positions for the sake of presentation clarity using fictional names. For the purpose of data presentation, three faculties visited for the study were the faculty of agricultural sciences, the faculty of education, and the faculty of social sciences. The information gathered from the interviews is displayed in relation to the interview questions and the raw responses provided by participants connected to those faculties. This was done to obtain a comprehensive understanding of the participant's responses.

Ethical Consideration

Before asking for the respondents' consent for the study, information was given about the research's objectives, methodology, and intended use of the data. The respondents were also given the option to leave the study at any time with their responses not being used in the research. In addition, issues of confidentiality, anonymity, and privacy were respected, with the exception of information that alluded to harm being done to an individual.

Results and Discussion

The present study sought to investigate the role of rural higher education institutions in leading societal transformation through sustainable initiatives. As such, results and discussion were presented under the following sub-heading:

- Roles of rural HEIs in championing societal transformation through sustainable initiatives

Roles of Rural HEIs in Championing Societal Transformation through Sustainable Initiatives

To investigate the role of rural higher education institutions in leading societal transformation through sustainable initiatives, participants were asked, “how does your institution encourage societal change? Research findings revealed that the production of highly skilled labour and research output to meet the perceived needs of the society, serving public goods, the production of critical citizens for a vibrant democratic society, and the development of rural communities towards the realisation of good quality of life are some of the ways through which rural higher education institutions encourage societal transformation. For instance, a participant stated that;

In the rural communities that surround us, you can tell that the rate of illiteracy is very high. As such, societal members need to acquire new attitudes, skills, and also competencies in the use of new technological tools. As a result, it is our duty as a university that we see to it that rural communities be developed so that they can realise that living and experiencing good quality of life is not dependent on being in an urban region. So, through community engagement programs such as community education, we ensure that we raise people’s awareness and assist them [community members] in the development of their potential for self-sustenance (Faculty Manager-Faculty of Education).

Similarly, another participant added:

In recent times, people in rural communities have migrated massively to the urban region in search of employment and better living conditions which sometimes leads to family disintegration. Thus, through capacity building for rural community cooperation, the university provides knowledge, resources, and skills that enable the communities to meet their immediate needs and as well prepare for their future needs. As a result, we [the institution] help in terms of knowledge skills in several initiated projects with other stakeholders. For example, the faculty of agricultural science has been at the forefront of providing and assisting the immediate society with life stock farming, a means for society to self-sustain itself (HOD- Faculty of Science and Agriculture).

Research findings also revealed that servicing public goods, developing highly skilled labour, and growing rural communities toward the realization of high quality of life are also ways by which rural higher education institutions promote societal changes. As such, a participant concurs that:

While part of the goal of a university is to produce high-quality graduates for the job market and ultimately advance human civilisation, it becomes apparent that universities should focus on community development if they are to achieve these goals. As a result, through several initiated projects housed in social sciences faculty, we[the university], were able to provide work-integrated learning opportunities within rural communities. Through initiatives such as the provision of career choice guidance for high school students, voluntary visits and assistance provided at the social works home and providing resources to the orphanage in the immediate environment, the university was able to give back to the immediate society and equip university students who were part of the project for the future world of work (Faculty Manager- Social Sciences).

Findings also revealed that for higher education institutions to make a sustainable difference, quality research output and the production of critical citizens for a vibrant democratic society should be included in their roles. For instance, a participant iterates that;

Our role as an institution towards education for sustainable development is varied, and it basically includes a high concentration on quality articles and an increase in our research output. This assists the university in helping rural communities from a research perspective. For instance, the university prioritises articles on climate action, clean energy, sustainable environment, life, and land, all of which are the top five Sustainable Development Goals (SDGs). This is because all these areas are important in driving research and innovation that are transferrable to solutions that support sustainable development within the local communities (Dean-Faculty of Science and Agriculture).

In addition, a participant purports that:

Given that education policy in many developing countries (also in Africa) now explicitly views democracy as a key educational goal, undoubtedly, we as universities cannot limit our [university's] duty to only prepare citizens for democratic citizenship and leadership. As a result, it is our responsibility to continue to preserve a dynamic democratic society and work to shape Africa's political trajectory by promoting democratic ideals in an era where citizens are growing more and more disillusioned with democracy. We are and will be able to achieve this through the inculcation of democratic skills and values in our curricula, as well as in our extra curricula activities – with the belief that when education is done well, students gain knowledge and skills to be effective contributors to their communities (Dean-Faculty of Education).

Research findings revealed that higher education institutions play a significant role in leading societal transformation through capacity building for rural community cooperation,

the provision of work-integrated learning opportunities housed in different faculties, and the encouragement of stakeholders' participation in several sustainable development projects, amongst many others. These findings corroborate with those of other researchers such as (Peer & Stoeglehner, 2013; Kioupi & Voulvoulis, 2022), who posit that some of the ways by which a university can function as a change agent in sustainable development at the local level are through direct participation in collaborative research projects to empower the local communities. Luvalo (2014) also added that due to universities' advantages in terms of human resources and community project expertise, higher education institutions have a crucial role to play in social transformation, as certain institutions are demonstrating with their rural development initiatives. Hence, the institutional theory places a major emphasis on the fact that organizations such as higher education institutions are open systems that are greatly influenced by their environments, but it also recognizes that other forces besides competition and efficiency are at play (Meyer & Rowan, 1977). As a result, the hard work of change, given the forms and dynamics in which HEIs have historically operated, is fraught with conflicting visions and views of the world among many stakeholders within the organization. Hence, these disputes might be channeled as catalysts that academic stakeholders can use to mobilize their connections in order to improve and scale their efforts for sustainable development. Similarly, Galaskiewicz (1985), in his article titled 'Interorganizational relations', argues that in an institution, giving to charities, creating director interlocks, and securing outside endorsements, organizations frequently aim to increase their legitimacy given that legitimacy enhances organization survival. As a result, in order to promote sustainability, organizations (such as the HEIs) must increase their credibility with stakeholders in their external surroundings by adopting structures that reflect widely held views (Meyer & Rowan, 1977; DiMaggio, 1988; Ogawa, 1992). This is because, legitimacy encourages stakeholders to spend resources in organizations, which helps ensure their existence or effectiveness.

Conclusion and Recommendations

Findings in this study revealed the significant roles of higher education institutions regarding societal transformation through sustainable initiatives capable of empowering the local communities. Participants highlight several roles and initiatives their faculties have embarked on for a sustainability-oriented society. However, there was no mention of any training programmes on local partnerships. In general, research participants rated their local network positively and their cooperation with the immediate societies which is an indication of a promising prospect given that such cooperation modalities may continue to be pursued in the future. The study, therefore, recommends that universities make their know-how more widely available so that they may continue to support various local sustainability efforts more systematically. In addition, universities may consider several training programmes on local partnerships for university staff and community members so that they can be in a better position to take advantage of local cooperation for sustainable development.

References

- Alharahsheh, H. H., & Pius, A. (2020). A review of key paradigms: Positivism VS interpretivism. *Global Academic Journal of Humanities and Social Sciences*, 2(3), 39-43.

- Benn, S., Edwards, M., & Williams, T. (2014). *Organizational change for corporate sustainability*. UK: Routledge. <https://doi.org/10.4324/9781315819181>
- Biedenweg, K., Monroe, M. C., & Oxarart, A. (2013). The importance of teaching ethics of sustainability. *International Journal of Sustainability in Higher Education*, 1-12. <https://doi.org/10.1108/14676371311288912>
- Blanco-Portela, N., Benayas, J., Pertierra, L. R., & Lozano, R. (2017). Towards the integration of sustainability in Higher Education Institutions: A review of drivers of and barriers to organisational change and their comparison against those found of companies. *Journal of Cleaner Production*, 563-578. <https://doi.org/10.1016/j.jclepro.2017.07.252>
- Breznitz, S. M., & Feldman, M. P. (2012). The engaged university. *The Journal of Technology Transfer*, 139-157. <https://doi.org/10.1007/s10961-010-9183-6>
- Cai, Y., & Mehari, Y. (2015). The use of institutional theory in higher education research. In *Theory and method in higher education research*. Bingley, New York: Emerald Group Publishing Limited. <https://doi.org/10.1108/S2056-375220150000001001>
- Caird, S., & Roy, R. (2019). Blended learning and sustainable development. *Encyclopedia of sustainability in higher education*, 107-116. https://doi.org/10.1007/978-3-030-11352-0_197
- Carroll, C. E. (2016). *The SAGE encyclopedia of corporate reputation*. UK: Sage Publications. <https://doi.org/10.4135/9781483376493>
- Clarke, V., Braun, V., & Hayfield, N. (2015). Thematic analysis. *Qualitative psychology: A practical guide to research methods*, 222-248.
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education (8th ed.)*. New York: Routledge. <https://doi.org/10.4324/9781315456539>
- Cooper, S., Parkes, C., & Blewitt, J. (2014). Can accreditation help a leopard change its spots? Social accountability and stakeholder engagement in business schools. *Accounting, Auditing & Accountability Journal*, 234-258. <https://doi.org/10.1108/AAAJ-07-2012-01062>
- Creswell, J. (2014). *Research design: Qualitative, quantitative, and mixed approaches*. Thousand Oaks, CA: Sage publications.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: qualitative, quantitative, and mixed methods approaches (Fifth edition ed.)*. Los Angeles: SAGE.
- Datko, J. (2015). On research methodology: Semi-structured interview in language pedagogy research. *Journal of Language and Cultural Education*, 3(2), 142-156.

- David, R. J., Tolbert, P. S., & Boghossian, J. (2019). Institutional theory in organization studies. UK: Oxford research encyclopedia of business and management. <https://doi.org/10.1093/acrefore/9780190224851.013.158>
- Denzin, N. K. (1978). *The research act: A theoretical introduction to sociological methods*. New York: McGraw-Hill.
- DiMaggio, P. J. (1988). Interest and agency in institutional theory. *Institutional patterns and organizations*, 3-21.
- Dlouhá, J., Huisingh, D., & Barton, A. (2013). Learning networks in higher education: universities in search of making effective regional impacts. *Journal of Cleaner Production*, 5-10. <https://doi.org/10.1016/j.jclepro.2013.01.034>
- Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry*, 12(2), 219-245. <https://doi.org/10.1177/1077800405284363>
- Galaskiewicz, J. (1985). Interorganizational relations. *Annual Review of Sociology*, 281-304. <https://doi.org/10.1146/annurev.so.11.080185.001433>
- Gonzales, L. D., & Ayers, D. F. (2018). The convergence of institutional logics on the community college sector and the normalization of emotional labor: A new theoretical approach for considering the community college faculty labor expectations. *The Review of Higher Education*, 41(3), 455-478. <https://doi.org/10.1353/rhe.2018.0015>
- Gudz, N. A. (2004). Implementing the sustainable development policy at the University of British Columbia: An analysis of the implications for organisational learning. *International Journal of Sustainability in Higher Education*, 156-168. <https://doi.org/10.1108/14676370410526242>
- Hoover, E., & Harder, M. K. (2015). What lies beneath the surface? The hidden complexities of organizational change for sustainability in higher education. *Journal of cleaner production*, 175-188. <https://doi.org/10.1016/j.jclepro.2014.01.081>
- Howlett, C., Ferreira, J. A., & Blomfield, J. (2016). Teaching sustainable development in higher education: Building critical, reflective thinkers through an interdisciplinary approach. *International Journal of Sustainability in Higher Education*, 1-16. <https://doi.org/10.1108/IJSHE-07-2014-0102>
- Hugé, J., Block, T., Waas, T., Wright, T., & Dahdouh-Guebas, F. (2016). How to walk the talk? Developing actions for sustainability in academic research. *Journal of Cleaner Production*, 83-92. <https://doi.org/10.1016/j.jclepro.2016.07.010>
- Kioupi, V., & Voulvoulis, N. (2022). *The Contribution of Higher Education to Sustainability: The Development and Assessment of Sustainability Competences*

- in a University Case Study. *Education Sciences*, 12(6), 1-20. <https://doi.org/10.3390/educsci12060406>
- Klein-Banai, C., & Theis, T. L. (2013). Quantitative analysis of factors affecting greenhouse gas emissions at institutions of higher education. *Journal of Cleaner Production*, 29-38. <https://doi.org/10.1016/j.jclepro.2011.06.004>
- Kurland, N. B. (2011). Evolution of a campus sustainability network: a case study in organizational change. *International Journal of Sustainability in Higher Education*, 12(4), 395-429. <https://doi.org/10.1108/14676371111168304>
- Leal Filho, W., Vargas, V. R., Salvia, A. L., Brandli, L. L., Pallant, E., Klavins, M., & ... Vaccari, M. (2019). The role of higher education institutions in sustainability initiatives at the local level. *Journal of Cleaner Production*, 1004-1015. <https://doi.org/10.1016/j.jclepro.2019.06.059>
- Lozano, R. (2006). Incorporation and institutionalization of SD into universities: breaking through barriers to change. *Journal of cleaner production*, 14(9-11), 787-796. <https://doi.org/10.1016/j.jclepro.2005.12.010>
- Lozano, R., Lukman, R., Lozano, F. J., Huisinigh, D., & Lambrechts, W. (2013). Declarations for sustainability in higher education: becoming better leaders, through addressing the university system. *Journal of Cleaner Production*, 10-19. <https://doi.org/10.1016/j.jclepro.2011.10.006>
- Luvalo, L. M. (2014). The role of higher education in social transformation and rural development. *Mediterranean Journal of Social Sciences*, 5(23), 1206-1212. <https://doi.org/10.5901/mjss.2014.v5n23p1206>
- Meyer, J. W., & Rowan, B. (1977). Institutional organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(1), 340-363. <https://doi.org/10.1086/226550>
- Mosier, S. (2015). Does the gown help the town? Examining town-gown relationship influence on local environmental sustainability in the United States. *International Journal of Public Administration*, 38(11), 769-781. <https://doi.org/10.1080/01900692.2014.979200>
- Ogawa, R. T. (1992). Institutional theory and examining leadership in schools. *International Journal of Educational Management*, 6(3), 1-10. <https://doi.org/10.1108/09513549210014169>
- Olawale, B., Mncube, V., Nondo, S., & Mutongoza, B. H. (2022). Building a sustainable and democratic future in rural South African higher education institutions. *Perspectives in Education*, 40(3), 14-28. <https://doi.org/10.18820/2519593X/pie.v40.i3.2>

- Peer, V., & Penker, M. (2016). Higher education institutions and regional development: A meta-analysis. *International Regional Science Review*, 39(2), 228-253. <https://doi.org/10.1177/0160017614531145>
- Peer, V., & Stoeglehner, G. (2013). Universities as change agents for sustainability-framing the role of knowledge transfer and generation in regional development processes. *Journal of Cleaner Production*, 85-95. <https://doi.org/10.1016/j.jclepro.2012.12.003>
- Ramagopalan, S. V., Graham, S., Carroll, R., Raluy-Callado, M., Nordstrom, B. L., Donaldson, R., & ... & Alikhan, R. (2019). Discontinuation and primary care visits in nonvalvular atrial fibrillation patients treated with apixaban or warfarin. *Journal of Comparative Effectiveness Research*, 8(6), 371-379. <https://doi.org/10.2217/cer-2019-0005>
- Rieckmann, M. (2012). Future-oriented higher education: Which key competencies should be fostered through university teaching and learning? . *Futures* 2012, 127-135. <https://doi.org/10.1016/j.futures.2011.09.005>
- Roulston, K. (2018, 01 18). Triangulation in qualitative research. Retrieved 02 07, 2023, from Qualpage: Examining the world through qualitative inquiry: <https://qualpage.com/2018/01/18/triangulation-in-qualitative-research/>
- Shiel, C., & Williams, A. (2015). Working together, driven apart: Reflecting on a joint endeavour to address sustainable development within a university. *Integrative Approaches to Sustainable Development at University Level: Making the Links*, 425-447. https://doi.org/10.1007/978-3-319-10690-8_30
- Sterling, S. (2013). *The sustainable university: challenge and response*. UK: Routledge. <https://doi.org/10.4324/9780203101780>
- Sterling, S., Maxey, L., & Luna, H. (2013). *The sustainable university: Progress and Prospects*. Abingdon, UK.: Routledge/Earthscan. <https://doi.org/10.4324/9780203101780>
- Wals, A. E. (2014). Sustainability in higher education in the context of the UN DESD: a review of learning and institutionalization processes. *Journal of Cleaner Production*, 8-15. <https://doi.org/10.1016/j.jclepro.2013.06.007>
- Wooltorton, S., Wilkinson, A., Horwitz, P., Bahn, S., Redmond, J., & Dooley, J. (2015). Sustainability and action research in universities: Towards knowledge for organisational transformation. *International Journal of Sustainability in Higher Education*, 16(4), 424-439. <https://doi.org/10.1108/IJSHE-09-2013-0111>
- Žalėnienė, I., & Pereira, P. (2021). Higher education for sustainability: A global perspective. *Geography and Sustainability*, 2(2), 99-106. <https://doi.org/10.1016/j.geosus.2021.05.001>

HYBRIDISATION OF UNIVERSITY EDUCATION FOR SUSTAINABLE DEVELOPMENT IN NIGERIA

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Abstract

Conventional university education cannot satisfy the employment goal of investing in this form of education. This is contrary to expectation and the human capital theory, which holds that investment in education will improve the individuals' skills, productivity, and contributions to the national income. In Nigeria, unemployment rate is growing at an alarming rate because the educational institutions turn out graduates, most of who are only suitable for public service; that is, white-collar jobs. This development led to the integration of entrepreneurship into the curricula of universities in Nigeria. Unfortunately, this step is an inadequate solution to the problem as finance is a limiting factor to entrepreneurship. The inability of the current university system to provide functional education for all their products necessitates the advocacy of hybridisation of university education in the country. This will compel undergraduates to register and offer a Technical and Vocational Education (TVE) as a second major. This study established that hybridisation of university education would enable undergraduates to benefit from the gains of TVE, which include employment in the industries and self-employment. It also revealed that hybridisation is a cyclic process that entails the following steps: (i) Policy advocacy and legislation; (ii) Establishment of administrative machinery; (iii) Diagnosis of university systems and projection of needs; (iv) Costing and budgeting; and (v) Implementation, monitoring and evaluation.

Keywords: Hybridisation, technical education, vocational education, conventional education, university education

Introduction

The lopsidedness in enrollment for science, mathematical, technical and vocational degree programmes, when compared with those of the arts and social science programmes, in most countries necessitates the advocacy for hybridisation of educational programmes in favour of the science, mathematical, technical and vocational degree programmes. Otherwise, attaining Sustainable Development Goals (SDGs) will continue to be elusive. Hybridisation of educational programmes entails the integration of the curricula for scientific, mathematical, technical and vocational programmes into those of the arts and the social sciences. This will improve graduates' employability and pave the way for self-employment. Technical and Vocational Education provides technical, academic and employability skills (African Union, 2007; Pongo, 2014). The needs of the different employers of labour are integrated into the curricula of TVE programmes. The graduates are also trained for self-employment (UNESCO, 2001; UNESCO, 2022).

The 17 sustainable development goals (SDGs) were formulated by the United Nations General Assembly (UNGA) to form part of the Post-2015 Development Agenda that aimed to create a future global development framework to replace the Millennium Development Goals, which was to end that year. They were consequently adopted in a UNGA resolution called the '2030 Agenda' (United Nations, 2015). The new agenda emphasised a holistic approach to achieving sustainable development for all. The 17 goals formulated to transform the world are:

- 1) **No poverty:** This SDG aims at ending poverty in all ramifications everywhere, with 2030 as the terminal date.
- 2) **Zero hunger (No hunger):** It aspires to end hunger, achieve adequate food security, and improved nutrition, and promote sustainable agriculture.
- 3) **Good health and well-being:** The aim is to ensure healthy and improved lives and promote well-being for all ages.
- 4) **Quality education:** It seeks all-inclusive and equitable quality education and promotion of lifelong learning opportunities for all.
- 5) **Gender equality:** The intention is to achieve gender equality and empower all women and girls.
- 6) **Clean water and sanitation:** The desire is to attain the sustainable management of water and sanitation for all.
- 7) **Affordable and clean energy:** This SDG aims at ensuring access to affordable, sustainable, reliable, and modern energy for all.
- 8) **Decent work with economic growth:** The aim is to promote sustained all-inclusive and sustainable economic growth with full productive employment and decent work for all.
- 9) **Industry, Innovation, and Infrastructure:** It entails promoting inclusive sustainable industrialisation, building resilient infrastructure, and fostering innovation.
- 10) **Reduced inequality:** It is to: reduce income inequality within and among countries.
- 11) **Sustainable cities and communities:** The aim is to make the cities and human settlements more inclusive, safe, resilient, and sustainable.
- 12) **Responsible consumption and production:** This intends to ensure sustainable consumption and production patterns.
- 13) **Climate action:** The goal entails taking urgent actions to combat climate change with all its impacts, emission regulation, and promoting developments in renewable energy.
- 14) **Life below water:** It intends to conserve sustainably using the seas, oceans, and marine resources for sustainable development.
- 15) **Life on land:** The goal desires to protect, restore, and promote sustainability of terrestrial ecosystems, management of the forests, combating of desertification or its encroachment, and halting and reversing of land degradation and biodiversity loss.
- 16) **Peace, justice, and strong institutions:** It is designed to promote peace and inclusivity in societies for sustainable development, and make provision for access to justice for all, and build accountable, effective, and inclusive institutions at all levels.
- 17) **Partnership for the goals:** The goal aims to strengthen the means of implementing and revitalising the global partnership for sustainable development (United Nations, 2022),

SDG 4 is on quality education. The goal has ten targets covering different facets of education. There are seven goals which are the expected outcomes, and three objectives which are means of achieving these targets, thus, making 10 in all. The first seven targets are the expected outcomes, while the last three are means of achieving the first seven targets. The SDG 4 targets are:

- 1) Universal primary and secondary education: Ensuring that by 2030, all girls and boys will complete free, equitable, and quality primary and secondary education leading to relevant and effective learning outcomes.
- 2) Early childhood development and universal pre-primary education: Ensuring that by 2030, all girls and boys will have access to quality early childhood development, care, and pre-primary education so they are ready for primary education.
- 3) Equal access to technical/vocational and higher education: Ensuring that by 2030, equal access for all women and men to affordable and quality technical, vocational, and tertiary education, including university.
- 4) Relevant skills for decent work: Ensuring that by 2030, there will be substantial increase in the number of youth and adults with relevant skills that will include technical and vocational skills, for employment, decent jobs, and entrepreneurship.
- 5) Gender equality and inclusion: Ensuring that by 2030, there will be total elimination of gender disparities in education to ensure equal access to vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations at all levels of education.
- 6) Universal youth literacy: Ensuring that by 2030, all youths and a substantial proportion of adults, men and women, achieve literacy and numeracy.
- 7) Education for sustainable development and global citizenship: It ensures that by 2030, all learners have acquired the knowledge and skills needed to promote sustainable development that will include, among others, through education for sustainable development and sustainable lifestyles, gender equality, human rights, promotion of a culture of peace, and non-violence, global citizenship that appreciate cultural diversity and culture's contribution to sustainable development.
- 8) Provision of effective learning environments: this is the building and upgrading of education infrastructure and facilities that are child, disability, and gender sensitive and ensures safe, non-violent, and effective learning environments for all.
- 9) Scholarships: Ensuring that by 2020, there is substantial expansion globally, in the number of scholarships available to developing countries, especially least developed countries, and small island developing States and African countries. Furthermore, it is for enrolment in higher education that will include vocational training and information and communications technology (ICT), technical, engineering and scientific programs, in developed countries and other developing countries.
- 10) Teachers and educators: Ensuring that by 2030, there is a substantial increase in the supply of qualified teachers through international cooperation for teacher training in developing countries, and the least developed countries and small island developing States.

In Nigeria, there is a growing concern about the inability of graduates to meet the needs of the labour market. The situation is worsened by the lopsidedness in programme enrollment, with the majority of undergraduates enrolling for humanities and social science courses, neglecting the physical and mathematical sciences and Technical and Vocational Education (TVE) even though the TVE provides a certain alternative for profitable self-employment, where the white-collar job is not obtainable.

Table 1: Undergraduates enrolment by gender and discipline in Nigeria

S/N	Discipline	Enrolment			Percentage
A	B	c	D	e	F
		Male	Female	Total	%
1	TVE Courses	501,860	351,332	853,192	46.02

2	Non-TVE Courses	546,485	454,084	1,000,569	53.98
Total		1,048,345	805,416	1,853,761	100.00

Source: 2019 NUC Digest

Table 1 reveals the undergraduates' enrolment by TVE – Non-TVE Classifications, using 2019 enrollment data for full-time students in Nigeria. Category 1 is the enrolment data for TVE Courses, while two is for Non -TVE Courses. Enrolment figures for the Non-TVE Courses for males and females and gross enrolment are more than for TVE Courses.

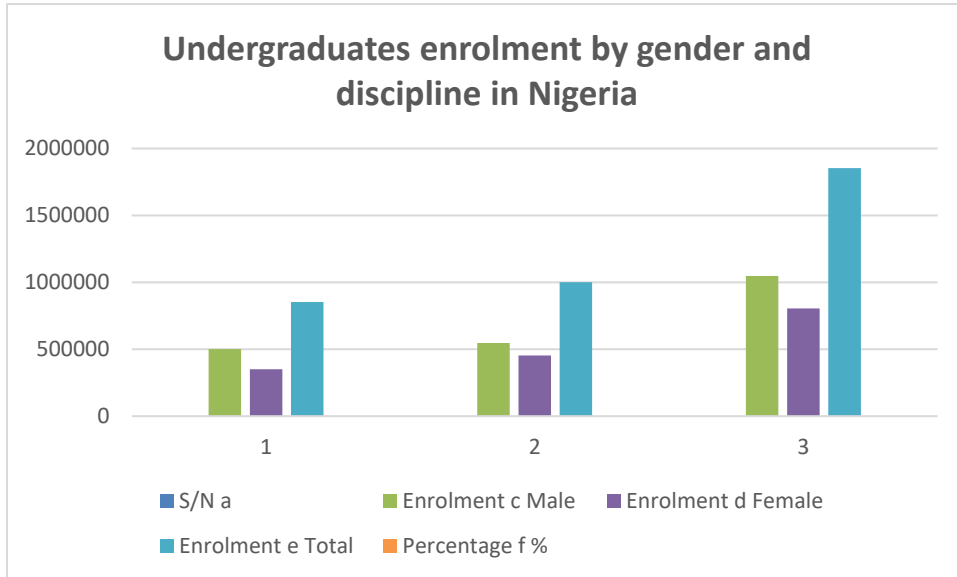


Figure 1: Bar chart showing undergraduates enrolment by TVE – Non-TVE Classifications

Source: Constructed from 2019 NUC Digest Enrolment Data

Figure 1 shows undergraduates enrolment by TVE – Non-TVE Classifications, using 2019 enrolment data for full-time students in Nigeria. Category 1 illustrates the enrolment data for TVE Courses, while 2 illustrates the enrolment for Non - TVE Courses. Enrolment for the Non - TVE Courses for males, and females and gross enrolment have taller bars than those for TVE courses.

The unemployment rate seems to be growing at an alarming rate in the country because the educational institutions turn out graduates who are only suitable for white-collar jobs. This development led to the integration of entrepreneurship into the curricula of universities in Nigeria. Unfortunately, this is an inadequate solution to the problem as finance is a limiting factor to entrepreneurship. The inability of the existing university system to provide functional education for all the products necessitates the advocacy for the hybridisation of university education in the country. Earlier studies focused on the hybridisation of instructional programmes; rather than on hybridisation of curricula. This study, therefore, seeks to fill this gap in the literature (Cil & Ugras, 2015).

Statement of the Problem

Conventional university education seems unable to satisfy the employment goal of investing in this form of education. This is contrary to expectation and the human capital theory, which holds that investment in education will improve the individuals' skills, productivity, and contributions to the national income (Psacharopoulos & Woodhall, 1997; Patrino & Psacharopoulos, 2018; Fabunmi, 2019). In Nigeria, unemployment rate is growing at an alarming rate because the educational institutions turn out graduates who are only suitable for white-collar jobs. This development led to the integration of entrepreneurship into the curricula of Nigerian universities. Unfortunately, this step is an inadequate solution to the problem as finance is a limiting factor to entrepreneurship.

The inability of the current university system to provide functional education for all their products necessitates the advocacy for the hybridisation of the university education in the country. This will compel undergraduates to offer a Technical and Vocational Education (TVE) as a second major and benefit from the gains of TVE. TVE is a form of education that makes products to be suitable for a variety of jobs and also for self-employment. According to Billet (2011), Maclean (2011), McGrath (2011) and Porres, Wildemeersch and Simons (2014), the purposes of technical and vocational education (TVE) include: (a) Equipping learners with technical and professional skills, which are needed for gainful employment; (b) Preparing learners for self-employment; and (c) Providing skilled middle and senior levels workforce needed for accelerated socioeconomic and industrial development of a country. These qualities make TVE amenable to self-employment.

Conceptual Framework

Hybridisation of university education implies integration of TVE into the regular conventional university programmes. The word had been used in different manners in earlier studies. Cil and Ugras (2015) reported using hybridisation in science education to select materials for experiments. Hybridisation is a cyclic process that entails the following steps: (i) Policy advocacy and legislation; (ii) Establishing administrative machinery; (iii) Diagnosis of university systems and projection of needs; (iv) Costing and budgeting; and (v) Implementation, monitoring and evaluation.



Figure 2: Hybridisation Cycle

TVE refers to all forms and levels of education and training that seek to provide knowledge and skills that are related to occupations in several sectors of economic and social life by using formal, non-formal, and informal learning methods in both school-based and work-based learning contexts (ILO, 2001; Ansah & Kissi, 2013). Conventional education refers to the traditional teaching method and lecture method, which is textbook-centred, teacher dominant, and exam-oriented. The emphasis is on the ability to recall; that is, remembering and reproducing facts, principles, and theories of learning. Technical skills is emphasised.

Hybridisation Process

The following are the stages entailed in the hybridisation of university education.

- 1) **Policy advocacy and legislation:** This is an essential step in hybridising any level of education. The step entails policy initiation, advocacy, and legislation. It is essential to carry along the stakeholders and the general public. This will grant the scheme the needed public acceptance. Unfortunately, employers of labour and the general public have not always been involved in curriculum development in Nigeria. This has led to the inability of school graduates to match labour market job requirements.
- 2) **Establishing the administrative machinery:** Planning, consultative, and implementation boards should be set up at each university to ensure adequate consultation. Furthermore, there should be adequate consultation amongst technocrats, community representatives, and government, or politicians.
- 3) **Diagnosis of university systems and projection of needs:** The prevailing conditions in the universities are diagnosed to know the current position of the

schools. That is, their resource situations. The statistics generated from this can be used for discrepancy analysis of the "current situation" and the "expected situation" or the "desired situation." After that, projections could be made.

- 4) **Costing and budgeting:** A detailed cost analysis will be made at this stage. This should be incorporated into the national and regional budgets.
- 5) **Implementation, monitoring, and evaluation:** This is the school mapping exercise stage for the hybridisation project. There should be adequate statistical information. The Federal or state Ministry of Education should provide instructions and manuals for drafting school maps for the project.

Implications for Planning and Policy

This study has some implications for stakeholders in the education industry. Among such are:

- 1) **Formulation of Hybridisation Policy and legislation:** As a matter of urgency, the Federal Government of Nigeria should formulate policies for the hybridisation of education in the country. These policies should be supported by appropriate legislation.
- 2) **Establishing the administrative machinery:** Appropriate administrative machinery should be implemented for such policies.
- 3) **Diagnosis of university systems and projection of needs:** There is a need to diagnose the university systems to establish the potential, set targets, and establish the gaps that must be covered.
- 4) **Draft of the plan for the project:** Based on the projections made, the plan for the project could be made. This plan should be incorporated into the development plan of the country.
- 5) **Costing and budgeting:** This is the stage at which a detailed cost analysis will be made. This should be incorporated into the national and regional budgets.
- 6) **Implementation, monitoring, and evaluation:** This stage is for plan implementation. It entails operational planning at the state level and execution of the hybridisation project.

Conclusion

The study established that hybridisation of university education would enable undergraduates to benefit from the gains of TVE, which includes industries and self-employment, and also aid the achievement of the Strategic Development Goals (SDGs), particularly SDGs 4, which is for education. It also revealed that hybridisation is a cyclic process that entails the following steps: (i) Policy advocacy and legislation; (ii) Establishing the administrative machinery; (iii) Diagnosis of university systems and projection of needs; (iv) Costing and budgeting; and (v) Implementation, monitoring and evaluation.

References

African Union (2007). *Strategy to Revitalize Technical and Vocational Education and Training (TVET) in Africa*. Meeting of the Bureau of the Conference of Ministers of Education of the African Union, 29 -31 May, 2007, Addis Ababa, Ethiopia.

- Anksah, S.K.; & Kissi, E. (2013). Technical and vocational and training in Ghana: A tool for skill acquisition and industrial development. *Journal of Education and Practice*, 4 (16), 172 – 180.
- Billet, Stephen (2011). *Vocational education: purposes, traditions and prospects*. Springer.
- Cil, E. & Ugras, M. (2015). The concept of hybridization from the perspective of science teaching undergraduate students: A phenomenographic study. *Journal of Baltic Science Education*, 14 (2), 227 – 236.
- Fabunmi, M. (2019): *Management in education: The integrity question*. 24th Inaugural Lecture, ModibboAdama University of Technology, Yola, Nigeria. Yola: Paraclete Publishers, Yola.
- International Labour Office, (2001). *A skilled manpower for strong, sustainable and balanced growth; A G20 Training Strategy*. International Labour Office (ILO).
- Maclean, Rupert; Herschbach, Dennis R, eds. (2009). *International Handbook for the Changing World of Work*. doi:10.1007/978-1-4020-5281-1. ISBN 978-1-4020-5280-4.
- McGrath, Simon (2011). "Where to Now for Vocational Education and Training in Africa". *International Journal of Training and Research*. 9 (1): 35–48. doi:10.5172/ijtr.9.1-2.35. S2CID 145050191.
- Patrino, H.A. & Psacharopoulos, G. (2018). For better return than the U.S. stock market, invest in education. *World Bank Blogs*, April 24, 2018. <https://blogs.worldbank.org/education/better-returns-us-stock-market-invest-education>
- Pongo, N.A.; Effah, B.; Osei-Owusu, B.; Obinnim; E. and Sam, F.K. (2014). The impact of TVET on Ghana's socio-economic development: A case study of ICCES TVET skills training in two regions of Ghana. *American International Journal of Contemporary Research*, 4 (1), 185 – 192.
- Porres, Gisselle Tur; Wildemeersch, Danny; Simons, Maarten (2014). "Reflections on the Emancipatory Potential of Vocational Education and Training Practices: Freire and Rancière in Dialogue". *Studies in Continuing Education*. 36 (3): 275–289. doi:10.1080/0158037X.2014.904783. S2CID 143863632.
- Psacharopoulos, G. & Woodhall, M. (1997). *Education for Development: An Analysis of Investment Choice*. Oxford University Press.
- UNESCO (2001). *Technical and Vocational Education and Training for the Twenty-first Century*. UNESCO.
- UNESCO (2011). *Technical and Vocational Education and Training for the Twenty-first Century: Revised Recommendation concerning Technical and Vocational Education (PDF)*. UNESCO.
- UNESCO (2022). *Transforming Technical and Vocational Education and Training for successful and just transitions*. UNESCO Strategy 2022 – 2029. UNESCO.
- United Nations Organisation (2015). *Resolution adopted by the General Assembly on 25 September, 2015, Transforming our world: Agenda 2030 for Sustainable Development Goals*. https://scholar.google.com/scholar?q=united+nations+2015+resolution+2030+agenda+for+sustainable+development&hl=en&as_sdt=0&as_vis=1&oi=scholar

United Nations Organisation (2015). *Sustainable Development Goals*.

<https://www.google.com/>

[search?q=united+nations+2015+sustainable+development+goals](https://www.google.com/search?q=united+nations+2015+sustainable+development+goals)

United Nations Organisation (2022). *Sustainable Development Goals Report*. Retrieved

from: <https://www.un.org/sustainabledevelopment/progress-report/>

EDUCATIONAL LEADERSHIP AND ARTIFICIAL INTELLIGENCE FOR SUSTAINABLE DEVELOPMENT

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Abstract

The imperativeness of educational leadership and artificial intelligence in contemporary society cannot be overstated in the quest for sustainable development, given the pivotal role of education in achieving the stated developmental objectives. This study aims to offer insights into the ways of using artificial intelligence and educational leadership for the attainment of sustainable development in Nigeria. Specifically, this study explored educational leadership, artificial intelligence, sustainable development, artificial leadership and sustainable development. Furthermore, the paper underscores the need for educational leadership that is fortified with artificial intelligence for sustainable development by revealing the roles of artificial intelligence in effective educational leadership and its implications for sustainable development. Also, it considers the associated challenges and the mitigating strategies to address it.

Keywords: Educational leadership, artificial intelligence, sustainable development.

Introduction

Education is an integral part of sustainable development; sustainable development serves as a solution to environmental degradation problems. Solving such problems requires a long-term and comprehensive strategy that takes into account the relationship between the environmental, social, and economic systems. Therefore, it is imperative that educators and educational leaders prepare students that would be able to thrive and meet up with the challenges of the future. The preparations should be geared towards qualitative improvement in diverse areas such as social justice, social equality, peace, health education, and environmental education amongst others, for sustainable development.

According to Leithwood, Harris and Hopkins (2020), educational leadership encompasses several key elements, including creating a shared vision, building relationships, developing people, managing resources, and fostering learning communities. Hence, as technology continues to evolve, there is a growing interest in the use of artificial intelligence in educational settings and if further inculcated into educational leadership has the potentials to improve leadership, learning outcomes and sustainable development.

Artificial intelligence is a rapidly developing technological machine that can completely transform global sustainability initiatives as a result of its capability to perform tasks that typically require human intelligence. It plays a crucial role in educational leadership by

streamlining administrative duties such as scheduling, record-keeping, grading, decision-making and also in teaching and learning by means of identifying areas for development and offering individualized support to instructors and students and by extension, this will lead to sustainable development (Obadimeji & Oredein, 2022).

Therefore, the aim of this study is to contribute to the growing body of research by exploring ways in which artificial intelligence can be used in educational leadership for sustainable development.

Educational Leadership

Educational leadership plays a major role in the successful running of educational institutions, as it encompasses procedures used in leading and managing educational organisations such as schools, colleges and universities towards actualising stated goals and objectives. According to Sergiovanni and Starratt (2019), educational leadership is a critical factor in determining the success of educational institutions. A shared objective can be achieved by staff members who are inspired and motivated by effective educational leaders. Additionally, they are able to develop an environment in the school that fosters learning and the well-being of all parties involved.

Similarly, promoting equality and social justice in education also requires strong educational leadership. Emdin (2020) noted that educational leaders must be committed to addressing systemic inequalities and ensuring that all students have access to high-quality education. They must also be eager to engage in critical self-reflection and work to develop inclusive and culturally sensitive learning environments. The educational leader possesses some certain traits, personalities, behaviours, patterns and styles of leadership such as instructional leadership, transformational leadership, servant leadership, ethical leadership, distributed leadership, digital leadership amongst others.

Artificial Intelligence

The first attempts to create machines that could think and learn like people were made in the 1950s, which is when artificial intelligence was first studied. Rule-based systems, neural networks, machine learning, and deep learning are just a few of the stages that artificial intelligence research has gone through. Russell and Norvig (2021) stated that recent advances in artificial intelligence have been fueled by the availability of large datasets, improved computing power, and sophisticated algorithms. Artificial intelligence can be classified into two main types: narrow or weak artificial intelligence and general or strong artificial intelligence. Narrow artificial intelligence is designed to perform specific tasks, such as playing chess or detecting fraud, and it operates within a limited domain. General artificial intelligence, on the other hand, is designed to perform any intellectual task that a human can do, and it is not limited to a specific domain (Ng, 2017).

Healthcare, finance, transportation, and education are just a few of the domains where artificial intelligence has a wide range of applications. Artificial intelligence is being used in healthcare to identify ailments, create individualised medicines, and examine X-ray pictures. Also, artificial intelligence is being used in finance to spot fraud, examine financial markets, and offer individualised investment guidance. Similarly, artificial

intelligence is being applied in the field of transportation to create autonomous vehicles and improve traffic flow. In education, artificial intelligence is being used to personalise learning, analyse student performance, and develop intelligent tutoring systems (Chui, Manyika, & Bughin, 2016). It is a machine that makes use of algorithms and statistical models to learn from data and make decisions or predictions based on learning. It provides the opportunity to use a large scale of knowledge that is in some way structured and suitable for use in the educational process to solve certain educational problems and which is personalised for each student (Yuskovych-Zhukovska, Poplavska, Diachenko, Mishenina, Topolnyk, & Gurevych (2022). However, there is a need for accountability and transparency in the development and deployment of artificial intelligence systems to ensure that they are used in ways that are consistent with ethical principles (Floridi, Cowl, Beltrametti, Chatila, Chazerand, Dignum & Luetge, 2018).

Sustainable Development

Due to growing concerns about how human activity affects the environment and the need to make sure that economic development does not come at the price of future generations, the notion of sustainable development has received a lot of attention in recent years. The Brundtland Report, which was released in 1987 by the International Commission on Environment and Development, was the first to establish the idea of sustainable development. According to the report, sustainable development is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987, p. 43).

Sustainable development encompasses three key dimensions: economic, social, and environmental. These dimensions are often referred to as the "triple bottom line" (Elkington, 1998). Economic sustainability involves promoting economic growth and development while ensuring that resources are used efficiently and that economic benefits are distributed fairly. Social sustainability involves promoting social equity, justice, and inclusion and ensuring that everyone has access to basic needs such as food, shelter, and healthcare. Environmental sustainability involves protecting natural resources and reducing pollution and waste. However, the balancing of the economic, social, and environmental components is one of the difficulties of sustainable development. This requires taking a holistic approach to development that takes into account the interconnections between these dimensions.

Another important development in sustainable development is the adoption of the United Nations Sustainable Development Goals (SDGs) in 2015. The SDGs are a set of 17 goals and 169 targets that aim to end poverty, protect the planet, and promote prosperity for all (UN, 2015). The SDGs provide a framework for governments, businesses, and civil society to work together to achieve sustainable development.

Artificial Intelligence for Sustainable Development

Artificial intelligence can be defined as a computational mechanism that enables computerised robots or software systems to engage in critical thinking and problem-solving activities in a manner that resembles the thinking patterns of an intelligent human. It is an advanced technology that has the potential to make a significant contribution to sustainable

development in areas such as transportation, agriculture, healthcare, energy, and education, among others. Artificial intelligence can also help to address global challenges such as climate change, poverty, and hunger, which are key objectives of sustainable development. Similarly, artificial intelligence can also help to deliver sustainable education content that promotes environmental awareness and fosters sustainable behaviours among students (Foster, Singh & Maresova,2020). Below are specific roles that artificial intelligence can play in actualizing sustainable development goals.

Personalised learning: learning experiences that are tailored and catered to each student's needs can be made using artificial intelligence by analyzing data on their learning preferences, interest and passions. Students may benefit from this as they get the skills and information necessary to contribute to a future that is more sustainable as well as a greater understanding of difficult sustainability-related themes.

Data analysis: With artificial intelligence, it is possible to find trends, patterns, and areas for improvement in complex data relevant to sustainability, such as climate data or environmental impact assessments. This will aid educators and policymakers in making data-driven judgements about sustainability initiatives and interventions.

Research and innovation: Artificial intelligence can aid in promoting research and innovations in the field of sustainability by evaluating data, modeling scenarios, spotting new prospects, amongst others. The sustainable development goals can be achieved more quickly as a result of this.

Accessibility:Artificial intelligence has the potential to make education more accessible for students who have special needs or who might have trouble adjusting to traditional classroom settings. Artificial intelligence- driven voice assistants and chatbots, for instance, may offer students individualised support and direction and virtual and augmented reality technologies can produce immersive learning experiences that are accessible from any location.

Artificial Intelligence and Educational Leadership for Sustainable Development

The 21st century has witnessed a rapid advancement in technology that has revolutionized various aspects of life. Artificial Intelligence (AI) has emerged as one of the most transformative technologies in recent times (Kriz, 2021). Artificial Intelligence (AI) has emerged as a revolutionary technology that has the potential to transform various sectors, including education. In recent years, AI has been adopted in various educational institutions as a means of improving learning outcomes and enhancing the quality of education (Li & Ni, 2021; Nham, 2021). Educational leadership, in particular, can leverage AI to improve the quality of education, enhance the effectiveness of teaching, and increase the efficiency of administrative processes (Kriz, 2021).

One of the critical roles of AI in educational leadership is to provide personalized learning experiences to students. AI-powered educational platforms can use data analytics to monitor students' progress and provide customized learning materials based on their individual learning styles, interests, and abilities (Kriz, 2021). By doing so, AI can help

ensure that every student receives the education that suits their needs, thereby improving learning outcomes.

Another role of AI in educational leadership is to support teachers in their daily tasks. AI-powered tools can help teachers assess student performance, grade assignments, and provide feedback in real-time (Kriz, 2021). This can free up teachers' time and allow them to focus on higher-order tasks such as lesson planning, curriculum development, and mentoring students. AI can also help identify students who need extra support, enabling teachers to provide timely and targeted interventions.

AI can also play a crucial role in administrative processes in educational institutions. AI-powered systems can automate routine administrative tasks, such as student record-keeping, scheduling, and course planning (Kriz, 2021). This can save time and reduce administrative errors, enabling educational institutions to allocate more resources to core educational activities.

The implications of AI in educational leadership for national development are immense. By leveraging AI, educational institutions can improve the quality of education, increase access to education, and reduce educational inequalities (Nham, 2021). This can lead to a better-educated workforce, which can help drive economic growth and development. AI can also help bridge the digital divide by providing access to education to students who may not have access to traditional educational resources (Li & Ni, 2021).

Challenges Faced by Educational Leaders in Maximizing Artificial Intelligence for Sustainable Development in Nigeria.

The integration of Artificial Intelligence (AI) in the education sector has the potential to transform the way students learn and teachers teach, ultimately leading to sustainable development. However, educational leaders in Nigeria face several challenges in maximizing the use of AI for sustainable development.

Firstly, inadequate infrastructure and funding pose a significant challenge. AI requires high-speed internet connectivity, advanced computer hardware, and software systems, which are often lacking in many educational institutions in Nigeria. Furthermore, the cost of acquiring and maintaining such infrastructure is high, and most educational institutions in Nigeria may not have the financial capacity to invest in such technology.

Secondly, a lack of technical expertise among educators and education administrators is another significant challenge. Educational leaders in Nigeria need to understand the technical aspects of AI, including the development of AI applications, data analysis, and algorithm design. However, most educators and education administrators in Nigeria lack the necessary technical skills, which makes it difficult for them to maximize the use of AI.

Thirdly, there is a need for the development of appropriate policies and regulations to guide the integration of AI into the education sector. The lack of policies and regulations creates an environment of uncertainty, which makes it difficult for educational leaders to make informed decisions regarding the integration of AI.

Fourthly, ethical concerns also pose a challenge in maximizing the use of AI for sustainable development in Nigeria. There are concerns about the potential biases that may be inherent in AI systems, especially those developed in other countries, which may not be applicable in the Nigerian context. Therefore, it is necessary to develop ethical guidelines that will ensure that the use of AI in the education sector is fair and equitable.

Finally, there is a need for increased public awareness and education about the benefits and potential risks of AI. Most Nigerians are not aware of the potential benefits of AI in the education sector, and some may be sceptical about its use. Therefore, educational leaders need to engage with the public and increase awareness about the potential benefits of AI in education.

Ways of Addressing the Challenges

Addressing the challenges faced by educational leaders in maximizing Artificial Intelligence for sustainable development in Nigeria will require a multi-faceted approach involving various stakeholders. Here are some ways to address the challenges:

Infrastructure and funding: Government and private organizations should invest in the development of AI infrastructure in schools and other educational institutions. This includes providing high-speed internet connectivity, advanced computer hardware, and software systems. Public-private partnerships can be established to fund the development of AI infrastructure in schools, which will help reduce the financial burden on educational institutions.

Technical expertise: Educational leaders in Nigeria should collaborate with AI experts to develop training programs for teachers and education administrators. These programs should focus on equipping educators with the necessary technical skills needed to integrate AI into the education sector.

Policies and regulations: The government should develop policies and regulations to guide the integration of AI in the education sector. These policies should address issues such as data privacy, ethical concerns, and bias in AI systems. Educational leaders should also be involved in the development of these policies to ensure that they are relevant to the Nigerian context.

Ethical concerns: Educational leaders should develop ethical guidelines that address issues such as bias, data privacy, and transparency. These guidelines should be enforced to ensure that the use of AI in the education sector is fair and equitable.

Public awareness and education: Educational leaders should engage with the public and increase awareness about the benefits of AI in education. This can be done through community outreach programs, workshops, and seminars. Additionally, AI-based educational resources can be developed and distributed to schools to help students understand the technology and its applications.

Conclusion

The integration of artificial intelligence in educational leadership has the potential to promote sustainable development. It underscores the importance of artificial intelligence, which can facilitate personalized learning, data analysis, research and innovation, and accessibility for sustainable development. Furthermore, the study recognizes the need for artificial intelligence and educational leadership to transform education and contribute to sustainable development. The article also addresses the challenges faced by educational leaders in maximizing the potential of artificial intelligence in educational leadership for sustainable development, and suggests ways to overcome these challenges. In summary, this paper reveals the potential of educational leadership and artificial intelligence for advancing sustainable development goals, which will benefit students, stakeholders, and society as a whole.

Suggestions

By leveraging the potential of artificial intelligence, educational leaders, students and stakeholders can help to build a sustainable future through the following suggestions:

1. Encourage educators and students to think creatively and explore new ways to leverage artificial development to promote sustainable development. Provide them with the resources and support they need to develop and implement innovative ideas.
2. Educate students and teachers about the potential of artificial intelligence to address sustainability challenges, and help them understand the ethical, social, and economic implications of artificial intelligence adoption.
3. Bring together experts from various disciplines, such as computer science, engineering, business, and environmental studies, to collaborate on artificial intelligence-driven sustainable development projects.
4. Equip educators and students with the skills they need to work with data, including how to collect, analyse, and visualise data to drive informed decision-making for sustainable development.
5. Build partnerships with industry and government to access funding and expertise, as well as to ensure that artificial intelligence applications align with sustainable development goals.

References

- Chui, M., Manyika, J., & Bughin, J. (2016). *Notes from the AI frontier: Insights from hundreds of use cases*. McKinsey Global Institute.
- Elkington, J. (1998). *Cannibals with forks: The triple bottom line of 21st century business*. Capstone.
- Emdin, C. (2020). *For White folks who teach in the hood-- and the rest of y'all too: Reality pedagogy and urban education*. Beacon Press.
- Floridi, L., Cowls, J., Beltrametti, M., Chatila, R., Chazerand, P., Dignum, V., ... & Luetge, C. (2018). *AI4People—an ethical framework for a good AI society: opportunities, risks, principles, and recommendations*. *Minds and Machines*, 28(4), 689-707.
- Foster, M., Singh, A., & Maresova, P. (2021). *Artificial intelligence for sustainable education*. *Sustainability*, 13(5), 2635.

- Kriz, W. C. (2021). *Artificial intelligence in education: Current and future developments*. *Journal of Educational Technology Development and Exchange*, 14(1), 1-14.
- Leithwood, K., Harris, A., & Hopkins, D. (2020). *Seven strong claims about successful school leadership*. *School Leadership & Management*, 40(1), 5-22.
- Li, N., & Ni, L. (2021). *The Role of Artificial Intelligence in Educational Leadership*. In *Proceedings of the 2021 3rd International Conference on Education Technology Management (ICETM 2021)* (pp. 53-59). Atlantis Press.
- Ng, A. (2017). *The Batch: AI assistants, self-driving safety, and more*. Stanford University.
- Nham, T. T. (2021). *The Integration of Artificial Intelligence in Educational Leadership: Opportunities and Challenges*. *International Journal of Emerging Technologies in Learning (iJET)*, 16(9), 245-257.
- Obadimeji, C.C. & Oredein, A.O.,(2022) *Digital leadership and decision making styles as determinants of public primary school teachers job performance for sustainable education in Oyo state*. *The Educational Review, USA*. Volume (6) Issue (6): 230-240, 2022.
- Russell, S. J., &Norvig, P. (2021). *Artificial intelligence: A modern approach*. Pearson Education.
- Sergiovanni, T. J., &Starratt, R. J. (2019). *Supervision: A redefinition*. Routledge.
- United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. Retrieved from <https://sustainabledevelopment.un.org/post2015/transformingourworld>
- WCED. (1987). *Our Common Future*. Oxford University Press. P. 43.
- Yuskovych-Zhukovska, V., Poplavska, T., Diachenko, O., Mishenina, T., Topolnyk, Y., &Gurevych, R. (2022). *Application of Artificial Intelligence in Education. Problems and Opportunities for Sustainable Development*. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 13(1Sup1), 339-356. <https://doi.org/10.18662/brain/13.1Sup1/322>

PEACE AND SECURITY STUDIES

SOCIAL JUSTICE, PEACE AND SECURITY FOR SUSTAINABLE DEVELOPMENT

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Abstract

Despite the various developmental plans formulated by the Nigerian government, sustaining the recorded development in the country seems to be a mirage. This research explored the critical need for sustainable national development in Nigeria, with a particular focus on social justice, peace, and security. The paper analyzes the impact of these concepts on sustainable development and employs Herman Daly's theory as the theoretical framework for the review. The paper discusses strategies for promoting social justice, peace, and security and also addresses the potential obstacles to their implementation. The conclusion drawn is that social justice, peace, and security are fundamental pillars of sustainable development. These concepts are vital for the advancement of individuals and communities in Nigeria. By providing valuable insights into the challenges and opportunities of promoting social justice, peace, and security, this research paper highlights the importance of these concepts for the long-term development of the country. It recommends that the Nigerian government must take proactive measures to ensure that social justice, peace and security are promoted and sustained for the benefit of its citizens.

Keywords: Social justice, Peace, Security, Sustainable development

Introduction

The Sustainable Development Goals (SDGs) represent a comprehensive approach to promoting economic, social, and environmental progress while ensuring that the needs of current generations are met without compromising the ability of future generations to meet their own needs. The SDGs consider all aspects of policy formation, planning, and implementation, with a focus on sustainable development. This means taking into account economic, social, and environmental factors to achieve sustainable development. The SDGs are also about promoting social equity, cultural diversity, and human rights, as well as responsible use and management of natural resources. However, to achieve the goals of sustainable development, it is crucial to ensure social justice, peace, and security.

Social justice entails the distribution of resources and opportunities in a manner that provides an equal opportunity for all individuals to achieve their full potential, irrespective of their social status, race, gender, or other individual characteristics. Peace, on the other hand, is the state of tranquility and absence of violence or hostility, which facilitates positive relationships, cooperation, and mutual understanding between individuals, groups, communities, or nations. Security is a measure taken to protect people, organizations, and assets from harm, damage, or unauthorized access. The integration of these concepts is crucial to achieving sustainable development, as the absence of social justice, peace, and

security can lead to the breakdown of law and order, resulting in a significant hindrance to sustainable development. Therefore, this paper is based on the following subheadings:

Concept of Social Justice

The concept of social justice is approached from multiple disciplines, as it encompasses a broad range of perspectives. According to Coninck, Culp, and Taylor (2013), social justice is a political concept that deals with the nature and structure of the state, an economic concept that concerns the equal distribution of goods and services within society, and an ethical concept that is grounded in an ethical framework. It is worth noting that social justice is a complex and multifaceted concept that is created by the government in power. In the case of Africa, many leaders pledged to promote social justice among their citizens by developing their economies, democratizing their political systems, and ensuring fair distribution of resources and opportunities (Ihejirika, 2013).

Social justice is a critical component of a just and equitable society that encompasses various disciplines, including philosophy, politics, economics, sociology, and law. At its core, social justice is focused on promoting equality, human rights, and fair distribution of resources and opportunities. This can involve addressing issues of discrimination based on race, gender, or other characteristics, ensuring access to essential services such as education and healthcare, and tackling economic inequality. Achieving social justice requires the collective efforts of individuals, communities, and governments, and may require both structural and cultural changes to address systemic biases and inequalities.

Social justice promotes the idea that all members of society should have equal access to resources and opportunities, regardless of their social status, race, gender, or religion. Social justice also emphasises the importance of human rights and the need to protect vulnerable groups from discrimination and injustice. It can lead to policies and practices that reduce inequality, such as progressive taxation, affirmative action, and social welfare programs.

However, the concept of social justice is often criticized for being too vague and subjective. There is a debate about what constitutes a fair distribution of resources and opportunities and how to achieve it. Some argue that social justice can lead to excessive government intervention and reduce individual freedoms, while others believe that it is necessary to address systemic injustices in society.

Concept of Peace

The notion of peace has a complex nature and has been examined across various fields, such as philosophy, political science, psychology, and international relations. In essence, peace denotes a condition of concord and non-violence, both among individuals and groups within and between communities and countries. It entails the absence of conflict and the presence of affirmative relationships based on collaboration, mutual regard, and empathy. Peace can be perceived as a goal and a process, which necessitates continuous endeavors to tackle the underlying causes of strife, promote comprehension and dialogue, and establish stable structures and institutions that support peaceful coexistence. Accomplishing peace may entail several approaches, including diplomacy, mediation, conflict resolution, and peacebuilding initiatives. Furthermore, it encompasses addressing

issues of inequality, poverty, and injustice, which can contribute to social and political turmoil.

In political science and international relations, peace is commonly studied within the context of conflict resolution and peace building. Recent studies have revealed that peace is not solely the absence of violence or war, but rather entails a comprehensive understanding of the concept, encompassing social, economic, and environmental dimensions. Galtung's categorization, peace can be classified into two types: negative peace, referring to the absence of violence and direct conflict, and positive peace, which involves the elimination of structural violence and the creation of a society that advocates for justice and equality. Researchers have also underscored the significance of factors such as social justice, human rights, and equitable distribution of resources in achieving sustainable peace.

In addition to the different levels of peace, there are also different approaches to peacebuilding. One approach is the top-down approach, which involves working with governments and political leaders to promote peace and stability. This approach is often used in post-conflict situations, where the focus is on rebuilding institutions and establishing a framework for peace. Another approach is the bottom-up approach, which involves working with communities and grassroots organizations to promote peace and address the root causes of conflict. This approach emphasizes the importance of local ownership and participation in peace building processes.

It is important to recognize that peace building is not a linear process and there are often challenges and setbacks. Some of these challenges include deep-seated grievances and mistrust, limited resources and capacity, and external factors such as geopolitical tensions and economic instability. Therefore, peacebuilding efforts must be adaptive and flexible, taking into account the local context and the evolving dynamics of conflict. Peacebuilding is an essential component of sustainable development and the well-being of individuals and communities. It requires a collaborative and multi-faceted approach, involving various sectors such as governments, civil society organizations, and international institutions. By promoting peace and preventing conflicts, we can create a more just and equitable world for all.

Concept of Security

Security can be defined as the state of being safeguarded from harm, danger, or potential threats. In recent years, the importance of security has grown significantly among individuals, communities, and governments worldwide due to the emergence of global threats such as terrorism, cybercrime, climate change, and pandemics. The concept of security encompasses a wide range of dimensions, including physical, economic, political, and social security. Physical security pertains to the protection of individuals and assets from physical harm or damage. This may involve various measures such as the installation of security cameras, locks, and alarms, as well as the deployment of security personnel and law enforcement agencies (Ramsay & Savage, 2018).

Economic security refers to the ability of individuals and communities to access and maintain sustainable livelihoods, financial stability, and economic growth. Economic

security can be achieved through various means, such as job creation, investment in education and training, and social protection programs (UNDP, 2020).

Political security refers to the stability and effectiveness of political institutions and processes, which are essential for maintaining peace and stability in society. This can include measures such as promoting democracy, human rights, and the rule of law, as well as strengthening institutions such as the police and judiciary (Buzan, Waever, & Wilde, 1998).

Social security refers to the protection of individuals and communities from social risks such as poverty, unemployment, and discrimination. This can include measures such as access to healthcare, education, and social welfare programs (United Nations, 2019).

Concept of Sustainable Development

Sustainable development is a concept that refers to a way of achieving economic, social, and environmental progress while ensuring that the needs of the present generation are met without compromising the ability of future generations to meet their needs. The idea of sustainable development emerged in the 1980s as a response to growing concerns about the negative impacts of economic growth and industrialisation on the environment and society. Sustainable development and the SDGs are closely related, as the SDGs provide a framework for promoting sustainable development by setting specific goals and targets. Sustainable development provides the overarching concept and philosophy that underpins the SDGs, and the SDGs provide a concrete way to implement sustainable development at the national and global level.

Sustainable Development Goals (SDGs) are a set of 17 global goals adopted by the United Nations (UN) member states in 2015 as part of the 2030 Agenda for Sustainable Development. The SDGs are aimed at addressing the world's most pressing social, economic, and environmental challenges, including poverty, hunger, climate change, inequality, and environmental degradation. One of the key importance of the SDGs is that they provide a framework for all countries to work towards achieving sustainable development. The SDGs cover a wide range of issues, including poverty, hunger, health, education, gender equality, clean water and sanitation, affordable and clean energy, decent work and economic growth, industry, innovation, and infrastructure, reduced inequalities, sustainable cities and communities, responsible consumption and production, climate action, life below water, life on land, peace, justice, and strong institutions, and partnerships for the goals (United Nations, 2015). This comprehensive framework ensures that no aspect of sustainable development is left out, and countries can work towards achieving a better future for all. Moreover, the SDGs provide a universal language for sustainable development that can be easily understood by policymakers, stakeholders, and citizens. Another significant importance of the SDGs is that they promote collaboration and partnerships for sustainable development. Therefore, it calls for partnership among governments, the private sector, and other stakeholders to work towards achieving sustainable development.

Approaches to Social Justice for Sustainable Development

There are several different approaches to social justice that have been developed over time. Some of these approaches are discussed below:

- 1. Participatory Approaches:** The significance of involving people and communities in the decision-making processes that have an impact on their lives is emphasized by participatory approaches. This method gives marginalized groups the chance to participate in the development process and acknowledges the variety of people's experiences, knowledge, and requirements. According to Byrne and Glover (2019), participatory approaches are essential for sustainable development because they promote ownership, empowerment, and collective action. Participatory approaches also foster trust, cooperation, and social cohesion, which are critical elements for achieving social justice.
- 2. Human Rights Approaches:** Human rights perspectives place a strong emphasis on the necessity of defending and advancing human rights in order to achieve social justice and sustainable development. Human rights approaches recognize the inherent dignity of all individuals and seek to ensure that they have access to basic needs such as food, shelter, and healthcare, as well as education and participation in the decision-making processes (Kalfagianni, Pattberg & Widerberg, 2019). By focusing on human rights, this approach seeks to address the root causes of poverty, inequality, and social exclusion.
- 3. Equity and Redistribution Approaches:** Equity and redistribution approaches recognize that social justice and sustainable development require a fair distribution of resources and opportunities. This approach aims to reduce disparities in income, wealth, and power, and ensure that everyone has access to basic needs and opportunities for advancement. According to Galasso and Ravallion (2021), equity and redistribution approaches are essential for achieving sustainable development goals, particularly in contexts where market forces fail to address poverty and inequality adequately.

Approaches to Peace for Sustainable Development

There are various approaches to peace that individuals, communities, and governments use to promote peace. Some three key approaches to peace are discussed below:

- 1. Diplomatic Approach to Peace:** The diplomatic approach to peace involves negotiating and reaching agreements between parties in conflict. Diplomacy involves the use of dialogue, negotiations, and treaties to resolve disputes peacefully. Diplomacy can be used at the local, national, or international level to address conflicts. It is often used by governments to promote peace and avoid war. Diplomacy can also involve third-party mediation to help parties in conflict reach a resolution.
- 2. Humanitarian Approach to Peace:** The humanitarian approach to peace involves providing assistance to people affected by conflict. Humanitarian organizations provide food, shelter, medical aid, and other essential services to victims of war and violence. The aim is to alleviate the suffering of those affected by conflict and promote peace. Humanitarian organizations also advocate for human rights and work to protect vulnerable groups such as women and children during conflict.

3. **Nonviolent Approach to Peace:** The nonviolent approach to peace involves promoting peace without the use of violence. This approach involves using nonviolent methods such as civil disobedience, peaceful protests, and grassroots movements to bring about change. The nonviolent approach to peace seeks to address the root causes of conflict and promote social justice. It also emphasizes the importance of dialogue, reconciliation, and forgiveness in promoting peace.

Approaches to Security for Sustainable Development

Some key approaches to security, namely, traditional security, human security, and comprehensive security, are discussed below:

1. **Traditional Security:** Traditional security refers to the protection of a state's sovereignty and territorial integrity against external threats, such as military aggression, terrorism, and nuclear proliferation. This approach focuses on building up military capabilities, intelligence gathering, and deterrence to prevent or respond to external threats. Traditional security has been the dominant approach to security since the end of World War II (Buzan, 2018). However, this approach has been criticized for its narrow focus on military power and neglect of non-traditional security threats.
2. **Human Security:** Human security is a people-centered approach to security that emphasizes the protection and empowerment of individuals and communities against a wide range of threats, including poverty, environmental degradation, disease, and human rights abuses (UNDP, 1994). This approach recognizes that security is not just about protecting states, but also about protecting the lives and livelihoods of individuals. Human security seeks to address the root causes of insecurity and promote sustainable development. However, this approach has been criticized for being too broad and vague, making it difficult to implement in practice.
3. **Comprehensive Security:** Comprehensive security is an approach that combines elements of traditional and human security to address both traditional and non-traditional security threats. This approach acknowledges the interconnectedness and require a comprehensive and integrated approach (Buzan, 2018). Comprehensive security seeks to promote security by addressing a wide range of issues, including military security, economic security, environmental security, and human security. This approach is considered more holistic and adaptable than traditional security and more concrete than human security.

The Nexus between Social Justice, Peace and Security for Sustainable Development

The relationship between social justice, peace, and security is a critical topic in the field of international studies. The interdependence of these concepts has been emphasized in various ways, such as the common slogan "no peace no development," "no peace no justice," and "no development no security" (UNDP 2016). The United Nations (2018) has recognized that insecurity and conflict pose significant obstacles to the achievement of the millennium development goals. Thus, the social justice-peace-security-development relationship underscores the importance of understanding the interconnections between justice, peace, security, development, and governance for sustainable development in Nigeria.

According to Uwa, Aisedion and Adi (2022) security and development have been considered distinct discourses in international studies, with development focusing on economic growth and well-being and security interpreted in various ways, such as individual, human, and state security. These policy domains address different actors and different types of threats, with development threats requiring long-term solutions, and security threats often needing immediate attention.

Social justice is a crucial component in promoting peace and security, as it helps to address the root causes of conflict and instability. Research has shown that societies that are more equal and just are less likely to experience violence and conflict (Wilkinson & Pickett 2018). This is because social justice promotes social cohesion and inclusion, which fosters a sense of belonging and shared responsibility for the welfare of society. Individuals who feel that they are being treated fairly and have access to the resources they need are less likely to engage in violent or criminal behavior (Gur 1970).

On the other hand, peace and security are necessary conditions for promoting social justice. In societies affected by conflict or insecurity, access to basic needs and resources is often disrupted, which exacerbates existing inequalities and deepens social divisions. This can create a vicious cycle of conflict and poverty, where individuals are unable to access the resources and opportunities needed to escape poverty and build better lives for themselves and their families (Wooden, Zaman, Tsimpo, & Vermeersch (2018). Peaceful and secure societies, by contrast, provide the conditions necessary for equitable and just societies to flourish. In addition to promoting social justice, peace and security are essential for promoting sustainable development. When societies are characterized by conflict and insecurity, the resources necessary for economic growth and development are often diverted to military or security purposes, rather than being invested in infrastructure, education, or healthcare (Collier & Hoeffler, 2004). By contrast, peaceful and secure societies can invest in the resources necessary for long-term economic growth and development, which can promote social justice by providing individuals with opportunities to succeed.

Social justice, peace, and security are interdependent concepts, with each being a necessary component for the realization of the other. Social justice is crucial for promoting peace and security by addressing the underlying causes of conflict and instability. Peace and security, in turn, provide the conditions necessary for equitable and just societies to flourish and promote sustainable development. By understanding the interconnections between these concepts, policymakers and researchers can work towards creating more peaceful, secure, and just societies that promote sustainable development.

Strategies for Achieving Social Justice, Peace and Security for Sustainable Development

Some of the key strategies for achieving social justice, peace, and security for sustainable development are discussed below:

1. **Promoting Human Rights:** One of the most important tactics for attaining social justice, peace, and security is the promotion of human rights. Individuals are handled with respect, equality, and dignity due to human rights. To safeguard human rights, including the rights to food, clean water, healthcare, education, and

other necessities, governments, civil society, and international organizations should collaborate.

2. **Addressing Economic Inequalities:** An important barrier to attaining social justice and sustainable development is economic inequality. Governments should adopt inclusive economic growth policies, like progressive taxation and social safety nets, to address economic inequality. Investments in education and training can also boost employment prospects and lower poverty.
3. **Promoting Gender Equality:** Inequality between the sexes continues to be a major obstacle to social fairness and sustainable development. Governments should enact laws that support women's rights, including equitable compensation, access to education, and control over their reproductive systems, in order to advance gender equality. The issue of gender-based violence and prejudice should also be addressed.
4. **Ensuring Access to Justice:** Promoting societal justice, peace, and security requires that people have access to the legal system. States should make efforts to guarantee that everyone has access to legal assistance and services. The authority of law should be strengthened, accountability should be encouraged, and corruption should be eliminated.
5. **Strengthening Peacebuilding Efforts:** In order to attain sustainable development, peace and security are required. To support peacebuilding initiatives, such as conflict prevention, mediation, and post-conflict reconstruction, governments and civic society should collaborate. Additionally, actions should be taken to support human security, disarm and demobilize armed groups, and address the underlying causes of conflict.

Threats to Achieving Social Justice, Peace and Security for Sustainable Development

Social justice, peace, and security are crucial components of sustainable development, but there are several threats that can hinder their achievement. They include:

1. **Poverty and inequality:** Poverty and inequality are major threats to social justice, peace, and security. These issues lead to a lack of access to resources, education, and healthcare, which can lead to social unrest and conflict (Choudhury, 2021).
2. **Political instability:** Political instability, particularly in fragile states, can hinder progress towards social justice, peace, and security. Political instability can lead to conflict, displacement, and a lack of access to basic services such as healthcare and education (Gizelis & Weaver, 2021).
3. **Discrimination and prejudice:** Discrimination and prejudice based on race, gender, sexuality, and other factors can lead to social exclusion and conflict. Addressing these issues is crucial for achieving social justice, peace, and security (Gill, 2020).
4. **Cybersecurity threats:** Cybersecurity threats such as cyberattacks and data breaches can undermine peace and security by disrupting critical infrastructure and services. Addressing cybersecurity threats is essential to maintain social stability and prevent conflicts (Hathaway & Levite, 2021).

Ways of Addressing the Threats to Social justice, peace and security for sustainable development

Achieving social justice, peace, and security for sustainable development requires addressing the threats discussed above, as well as others that may emerge in the future. These threats require collective action and collaboration at the global level to ensure that progress towards sustainable development is not impeded. The following are ways of addressing the threats:

1. **Addressing poverty and inequality:** To address poverty and inequality, there is a need for policies that promote economic growth, job creation, and access to education and healthcare (Choudhury, 2021). Addressing income inequality can also help to reduce social unrest and conflict (Morrison, 2020).
2. **Conflict prevention and peacebuilding:** To address political instability and prevent conflict, there is a need for policies that promote conflict prevention and peacebuilding, such as promoting democracy, strengthening institutions, and promoting human rights (Gizelis & Weaver, 2021). Investing in conflict prevention and peacebuilding can also help to reduce the human and economic costs of conflict (Gizelis & Weaver, 2021).
3. **Addressing discrimination and prejudice:** To address discrimination and prejudice, there is a need for policies that promote social inclusion and diversity, such as promoting affirmative action and equal opportunity policies (Gill, 2020). Promoting intergroup contact and dialogue can also help to reduce prejudice and increase social cohesion (Dovidio, Love, Schellhaas, & Hewstone, 2020).
4. **Cybersecurity measures:** To address cybersecurity threats, there is a need for policies that promote cybersecurity measures, such as investing in cybersecurity infrastructure, promoting cybersecurity awareness, and regulating the use of cyberspace (Hathaway & Levite, 2021).

Conclusion

The achievement of social justice, peace, and security is a critical aspect of sustainable development, and there is an interdependent relationship between these goals. To realize sustainable development, it is necessary to address the underlying causes of social injustice, conflict, and insecurity, and this requires collective action from governments, civil society, and the private sector. Efforts to promote economic growth, job creation, access to education and healthcare, climate change adaptation, conflict prevention and peacebuilding, social inclusion and diversity, and cybersecurity measures are vital to achieving these objectives. Achieving these goals is a complex task that requires ongoing research and dialogue to better understand the multifaceted factors contributing to social injustice, conflict, and insecurity. By fostering a multidisciplinary and collaborative approach to these challenges, we can strive towards a more equitable and sustainable future for all, where individuals and communities can thrive and achieve their full potential. Ultimately, achieving social justice, peace, and security is not only a desirable outcome in itself but a prerequisite for sustainable development.

Suggestions

In order to promote social justice, peace and security for sustainable development, the following suggestions were made:

1. Prevent and resolve conflicts by addressing root causes of conflict, promoting dialogue and negotiation, and supporting the peaceful resolution of disputes.
2. Governments and other stakeholders should promote human rights, including freedom of expression, assembly, and association, and work to eliminate discrimination and prejudice.
3. Ensuring access to justice for all is a fundamental aspect of social justice, peace and security
4. Achieving gender equality is vital to social justice, peace and security
5. Promoting economic empowerment for marginalized communities can help reduce poverty, inequality and social exclusion

References

- Alpaslan, C. M. (2021). *Theoretical and conceptual foundations of peacebuilding*. In D. J. Christie (Ed.), *Encyclopedia of peace psychology* (318-322). Wiley-Blackwell.
- Bar-On, D., and Tattelman, E. (2020). *Toward a comprehensive understanding of peace: Definitions, dimensions, and measurement*. *Journal of Peace Research*, 57(1), 3-1
- Buzan, B. (2018). *Security: A new framework for analysis*. Lynne Rienner Publishers.
- Buzan, B., Waever, O., and Wilde, J. D. (1998). *Security: A new framework for analysis*. Lynne Rienner Publishers.
- Byrne, J., and Glover, L. (2019). *The need for a participatory approach to sustainable development*. *Sustainability*, 11(22), 6434.
- Choudhury, S. R. (2021). *Poverty, inequality, and social justice: An overview of the links*. *Asian Journal of Social Science Studies*, 6(3), 67-74.
- Collier, P., and Hoeffler, A. (2004). *Greed and grievance in civil war*. *Oxford Economic Papers*, 56, 563-595.
- Coninck, J. D., Culp, J. and Taylor, V. (2013) “*African perspectives on social justice*”FriedrichEbert-Stiftung, Uganda
- Dovidio, J. F., Love, A., Schellhaas, F. M. H., and Hewstone, M. (2020). *Reducing intergroup bias through intergroup contact: Twenty years of progress and future directions*. *Group Processes & Intergroup Relations*, 23(6), 840-859.
- Galasso, E., and Ravallion, M. (2021). *Social protection and inequality: A new deal for the developing world*. Oxford University Press.
- Galtung, J. (1969). *Violence, peace, and peace research*. *Journal of Peace Research*, 6(3), 167-191. <https://doi.org/10.1177/002234336900600301>
- Gill, C. (2020). *Prejudice, discrimination, and conflict: The social psychology of intergroup relations and group processes*. *American Psychologist*, 75(4), 499-
- Gizelis, T. I., and Weaver, V. (2021). *Political instability, state capacity, and social welfare*. *World Development*, 137, 105159.
- Gurr, T. R. (1970). *Why men rebel*. Princeton University Press.

- Hartmann, B., and Boyce, T. (2020). *The economics of peace*. Journal of Peace Research, 57(1), 17-33.
- Hathaway, O. A., and Levite, A. (2021). *Cybersecurity and international peace and security*. Journal of Cybersecurity, 7(1), tyaa006.
- Ihejirika, J. C. (2013). “*Problems in the utilization of continuing education programmes for improved access to education in Niger Delta region of Nigeria*” Journal of Education and Practice, 3(4), 20-27
- Kalfagianni, A., Pattberg, P., and Widerberg, O. (2019). *Advancing global sustainability governance*. Routledge.
- Kriesberg, L. (2018). *Constructive conflicts: From escalation to resolution* (5th ed.). Rowman & Littlefield Publishers.
- Morrison, A. R. (2020). *The economics of inequality, poverty, and discrimination*. Journal of Economic Literature, 58(1).
- Ramsay, G., and Savage, T. (2018). *The Routledge handbook of international crime and justice studies*. Routledge.
- UN. (2019). *The sustainable development goals report 2019*. United Nations.
- UNDP (2016) *UNDP support to the implementation of the 2030 Agenda for Sustainable Development; United Nations Development Programme: New York*.
- UNDP. (2020). *Human development report 2020: The next frontier- human development and the Anthropocene*. United Nations Development Programme.
- United Nations Development Programme (UNDP). (1994). *Human Development Report 1994: New Dimensions of Human Security*. Oxford University Press.
- United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development*.
<https://sustainabledevelopment.un.org/post2015/transformingourworld/>
- United Nations. (2018). *Millennium Development Goals*. Retrieved from <https://www.un.org/millenniumgoals/>
- United Nations. (2021). *What is Social Justice?* Retrieved from <https://www.un.org/en/observances/social-justice-day>
- Uwa, C., Aisedion, O., and Adi, A. (2022). *The nexus between security and development: A critical review of the literature*. International Journal of Security and Development, 11(1), 1-21. doi: 10.31387/ijssdh.v11i1.328
- Wilkinson, R., and Pickett, K. (2018). *The inner level: How more equal societies reduce stress, restore sanity and improve everyone's well-being*. Penguin.
- Wodon, Q., Zaman, H., Tsimpo, C., and Vermeersch, C. (2018). *Conflict, displacement, and poverty in Burundi: The impact of conflict on economic welfare*. World Development, 105, 59-73.

THEOLOGY OF SOCIAL INCLUSION: LESSONS FROM A STUDY OF DOMESTIC VIOLENCE IN THE OLD TESTAMENT FOR CONTEMPORARY PUBLIC MISSION

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Abstract

The contemporary public space has consistently been heated up by various kinds of malpractices among children and young people who engage in nefarious activities that have continuously posed threats to the peace of society. The home is where individuals in the society are formed, and is to a large extent, the determiner of the happenings in the public. Considering the theology of social inclusion, this paper considers domestic violence as a factor that could influence children's upbringing; the study particularly narrows down to how parental preference in the homes of the Old Testament Patriarchs. Examples are drawn from some efforts that went into addressing this challenge, but their apparent failures are a justification for the need to take biblical understanding beyond the formal or religious church setting into addressing needs in the public space; one such need is the problem of tension and hostilities in the homes and their negative impacts in the society. Among the many lessons drawn from the study of domestic violence in the homes of the Old Testament Patriarchs is that attitudes as simple as preferring a child to another child, could set the public on fire in the course of time.

Keywords: Public, Children, Society, Home, Theology of Social Inclusion, Domestic Violence; Old Testament Patriarchs; Parental Preference

Introduction

The home is the cradle in which life in the society is nurtured. Whatever kind of life is predominant on the street, in the market place or in the general public could easily be traced to the homes in which the bearers of such lifestyles were raised. Besides genetic influence, the atmosphere that prevails in the home plays a large role in shaping the lifestyle of a human being. A popular adage says, "Charity begins at home". The home is a place for inculcating into a person, the values and attitudes that make an ideal member of the larger society, and the process of doing this is what the domestic life is all about. But when within the home environment, certain behaviours and attitudes that do not promote peaceful coexistence are encouraged, then it can be said that the situation of domestic violence is existing. This is often associated with one person's exertion of power or control on the other "in a relationship through the use of physical, emotional, sexual, economic, or psychological abuse"(Valentino & Thiem 2023). This paper explores a study of domestic violence as a result of parental preference in the homes of the Old Testament Patriarchs and the lessons for public missions.

Failed Efforts in Addressing Domestic Violence

It cannot be denied that efforts have been made to address the issue of domestic violence with all its multifaceted and multidimensional impact. Various approaches have been

employed to curb the menace, but noticeably, there has not been any significant progress in the fight against this problem in Nigerian society. In the year 2015 when former president Muhammadu Buhari was campaigning for elections, he promised to "eliminate discrimination against women". In his words, "My administration will have zero tolerance for violence against women and girls. "We will provide women with greater legal protection from all forms of violence and sexual harassment and there will be a commitment to the implementation of all existing legislation on violence against women',"(<https://www.vanguardngr.com/2015/03/i>). But eight years down the line, that promise has served more as a political selling point because several pieces of evidence show its failure.

It was also reported by the *Vanguard Newspaper* on the 30th of July 2017 that the Lagos State Government enlisted two million residents to fight against domestic and sexual violence. The drive was through "The Lagos State Domestic and Sexual Violence Response Team (DSVRT)" (<https://www.vanguardngr.com/2017/07/>). By the following month of that year, during a public lecture on Management of Domestic Violence, organized by the ministry in Lagos, a top government official observed: "that many women, by their actions, are the cause of the rate of domestic violence in Nigeria"(<https://www.vanguardngr.com/2017/08/>). These are indicators of the government's consciousness of the peril of domestic violence and the impact it is having on public life.

However, the government's awareness of the ravaging effects of domestic violence among Nigerians has not translated to a significant reduction in the rate of violence, neither in homes nor in the public arena. On the 1st of June 2022, the Lagos State Government reported that there were 2,334 worrisome cases of domestic violence in four months (Chukwu 2022). That report indicates the seeming ineffectiveness of the various approaches that have been employed to curb this problem in Nigerian society.

It is not only the Government efforts that seem to have failed in the bid to address the problem of domestic violence, even the Church seems not getting it. In the words of Tony Evans,

Domestic violence is a reality within our churches and within our pews, regardless of whether we see it... the church's historical response to women in abusive relationships has been reticent at best and anaemic at worst. Church leadership often has turned a blind eye to a problem that has become progressively worse by telling women to try harder or learn how to be submissive rather than assisting them in securing the protection they need (Evans. undated <https://www.preaching.com/articles/domestic-violence-in-the-church-have-we-gotten-it-wrong-too/> Accessed March 7, 2023)

Evans' submission can be practically seen in the church today. So many people are suffering in silence; women suffer untold hardship under tyrants who claim to be husbands;

some husbands also have become 'houseboys' or slaves to their wives. Unfortunately, Church leadership see these things and glosses over them; when issues are raised, they sweep them under the carpet. This is not to take for granted how challenging dealing with domestic violence can be. In the words of Phil Haslanger, "It's hard to stand in front of a congregation and talk about domestic violence. But it's essential. It's essential because too often in the past, religious traditions have been used to defend abusive patriarchy, to bind victims to marriage commitments that are undermined by intimate violence, to encourage people to 'offer up' suffering rather than change the conditions that cause it". (Haslanger 2015) Church leadership, particularly the clergy, are mostly culpable of putting men and women under marital bondage in the name of marriage vows that sometimes precipitate abuse and violence in the long run. Unfortunately, women are usually at the receiving end, and often, children suffer serious consequences under such circumstances.

Domestic Violence in the Old Testament Through Parental Preference

Parental Preference refers to the practice whereby parents show partiality among their children such that a child is visibly loved, preferred, and favoured, well above and at the expense of the other child or children.

The family is supposed to be one of the main societal institutions. Families are thought to provide a sense of belonging, love, and support to their members. Family members are often represented as being protective of each other... In the real world, parents often give one of their children preferential treatment, while other children are ignored, look down upon, or are held to impossible standards which are referred to as Parental Preferential Treatment or favouritism. (<https://megatomservices.org/blog/parental-preferential-treatment-for-siblings> 2021)

The above words are very explanatory and clear on the subject matter. When parents give a child more privilege, attention, less discipline, more time, love and favour than other siblings, they are practically showing preferential treatment which may in the long run, not augur well. The equal importance of every child in the family is undermined when parents limit their love and affection to just one of their children but show no love or become indifferent to other members of the family.

Contemporary Dynamics of Parental Preference

Several reasons have been advanced to explain why parents have favourites among their children. Victoria Adenekan, a Journalist with *The Punch Newspaper* in Nigeria, conducted some investigation by "asking some members of the public whether or not it is appropriate for parents to have a favourite child". The responses provided across various categories of respondents are quite insightful. A parent admitted that it is natural to have a favourite child, but it should not be obvious. The respondent opined on the possibility of loving all the children the same way and at the same time having a favourite child. However, making such favour obvious will amount to cruelty. Another respondent submitted that favouring a particular child over others "affects the one that is favoured and the one that is not favoured" because "the favoured ones tend to leverage that advantage and even misbehave because they derive more attention. The other ones might try to stir up rivalry amongst

themselves as a way of craving attention and they can harm their favorite one. A respondent said, "There might be some situations that could make you have a preference for one over the other perhaps because of their comportment in the house, their academic performance and the like. Of course, parents will always love the smart one, like the one that can do things with little or no supervision". (Adenekan 2022 <https://punchng.com/is-it-good-for-parents-to-have-a-favourite-child/>)

In a write-up on *The Secret Reason Why Parents Play Favorites*, Sara Novak observes that not many parents would admit to parental favouritism, however, 70 percent of parents are into it. Although Novak does not disclose the source of her statistics, she, however, submits that parental favouritism could have a long-term effect; citing the result of a recent survey, she notes that "kids who report their parents had a favourite child are far more likely to have felt lonely growing up. Disfavored children are also prone to using drugs and having low self-esteem". The main reasons why parents prefer a child above another according to Novak include the gender of the child, the child's prospects in terms of carrier, reproduction, and the economic advantages (Novak, 2022). Novak's perspective in relation to gender preference calls to mind some cultures in Africa, particularly in Nigeria in which the male child is often preferred to the female; so much that if a wife only gives birth to girls, she does not earn any respect from the society. Only the male child is entitled to inherit properties from the father, the girl is married out and when she faces violence in her home, she feels unsafe to seek protection from her father's home.

Parental Preference from the Old Testament Patriarchal Families

The families of the Old Testament Patriarchs: Abraham, Isaac and Jacob, were riddled with cases of parental preferences. The Bible writers were so faithful to the records that they never spared or absolved these heroes of faith of this sore aspect of their family lives. This paper looks at the biblical accounts of how parental preference reared its ugly head in the homes of the Patriarchs and the consequent backlash of domestic violence.

Abraham and Sarah (Gen 16:1-6; 21:5-12 cf. Gal4:24-31 NIV)

In the biblical account found in the passages above, three important ideas are of note: Sarai (later changed to Sarah) had concluded that the LORD had kept her from having children. In the original language, she used the term שָׂרַי נִצְרָנִי pronounced *tsaaraniy* meaning 'to restrain'. It is from the root verb נָצַר of which one of the arrays of meaning is 'to hold back'. That is, Sarah considered herself to have been held back by God to have a child for Abraham. Therefore, she suggested to him to have Hagar her maidservant, and he consented, and Hagar became pregnant. That set the stage for the beginning of the violence in Abraham's home. The second point for consideration is the attitude of Hagar when she realized she had become pregnant: she began to despise her mistress. The term for the verb 'despise' as used in this context is from the primitive root קָלַל pronounced, *kaw-lal* meaning, trifling, light (lack of weight), small. In Hebrew language, this Qal verb is a Waw-Consecutive, meaning it is an action that was exhibited as a consequence of what had happened earlier. That is, when Hagar knew that she had become pregnant, Sarah her mistress, became trivialized, small, insignificant in her eyes. In other words, she began to disrespect her mistress; of course, that led to a more ruthless response from Sarah: Then Sarai mistreated Hagar; so she fled from her. The word translated 'mistreated'

in the NIV and 'dealt hardly' in the KJV is from the Hebrew root verb, ענה pronounced *annah*. This is also a waw-consecutive term with meanings ranging from "the idea of looking down or browbeating". This suggests that as a result of Hagar's insolent attitude to her, Sarah bullied, maltreated and subjected her to harsh treatment and for that reason, she fled. It can be deduced from this analysis that the atmosphere in Abraham's home became toxic well ahead of the birth of the baby in Hagar's womb. The obnoxious air in Abraham's home got into another level when Sarah had her own baby.

Two main ideas are considered in Gen 21:1-10: " But Sarah saw that the son whom Hagar the Egyptian had borne to Abraham was mocking"(vs9) The verb, 'mocking,' is from the root צחק pronounced *tsawkhak* meaning 'to laugh at', 'to scorn', 'to make jest of'. Sarah caught Ishmael, making jest and laughing, though the text does not mention who the subject of the mocking was, but the Apostle Paul in Gal 4:29-30, used the term, εδιωκεν . It is an imperfect, active, indicative verb from the root διώκω with varieties of meaning such as 'to pursue', 'to persecute', 'to make to flee'. It means that Ishmael, was actually persecuting Isaac who he was fourteen years older than. The *Interpreter's Concise Commentary* on the Pentateuch, comments on this from another perspective: "Sarah discovers the two children playing together, and the sight of one of this equality of status angers the jealous mother. There is no need to suspect the slave's son of any unchaste or arrogant behaviour. In Sarah's eye, he threatens her son's position and therefore must go." (Marks et.al. 1983, 48) . Rather than emphasizing an apparent difference that this commentary suggests, the bottom line is that Ishmael's disposition towards Isaac was far from being friendly, and that set the stage for the next step that Sarah was going to take: " and she said to Abraham, 'Get rid of that slave woman and her son, for that slave woman's son will never share in the inheritance with my son Isaac'."(Gen 21: 10). The Hebrew verb translated to 'get rid of' or 'cast out' is גרש (garash), with the root meaning 'to drive out', 'to divorce', 'to expel'. As a Hebrew Imperative, it is a command; hence, Sarah commanded Abraham to immediately expel Hagar and her son Ishmael from the home. The reason she gave clearly shows that Ishmael and his mother had become irrelevant, more so that she now has her own son who of course, is better preferred to the son of a slave woman as the bona fide heir. Abraham was most uncomfortable with Sarah's command, but his indignation ...is removed by God's approval of Sarah and promise of the future of the son of the slave" (Marks et.al 1983).

The slave woman and her son were thrown out in preference to the freeborn; could this not have generated the animosity that the world is yet to recover from? The Apostle Paul states that as Ishmael persecuted Isaac, "...so it is now"(Gal 4:29). The descendants of these two sons of Abraham, namely the Arabs and the Jews, the Muslims and Christians are still at loggerheads till the present time.

Isaac and Rebecca (Gen 25:24-29; 27:1-13;41)

From the early age of their twin babies, Isaac and Rebecca had indicated which of the boys each of them preferred. The reason for Isaac's preference for Esau is clear: he had a taste for the wild game that Esau brings home from the field and the delicious venison he makes of them. Rebekah's preference for Jacob may have been influenced by the outcome of the enquiry she made in which it was told her that the older would serve the younger (Gen25:23). The preference for Esau because of the venison that he prepares apparently

influenced Isaac's decision to use that as the condition for discharging the family blessings on him. However, the arrangement was wittingly thwarted by Rebecca.

The consequence of Rebecca's preference for Jacob and for which she manipulated the firstborn blessing to him is clearly seen in Gen 27:41 where Esau determined to kill Jacob after the death of Isaac their father. Such was the extent of the anger and hostility to the situation generated in the household of Isaac. Unfortunately, the violence was not limited to the home of Isaac and Rebecca; it became a generational problem between the descendants of Esau and Jacob, the Edomites and the Israelites respectively. "Relations between Israel and Edom were marked by animosity throughout the Old Testament period...this bitter rivalry forms the background to Obadiah's prophecy". (Hayford 1237, 2018) Hence, the act of preferring a child above another child within the home could eventually escalate to a generational conflict between nations for many centuries.

The Household of Jacob (Gen 37:1-5, 17-21)

The reason for Jacob's preference for Joseph over his brothers is clearly spelt out: "because he had been born to him in his old age" (vs3). He also went ahead to make his preference for Joseph obvious: "he made an ornamented robe for him"(vs3). Apart from incurring his brothers' wrath by always bringing a bad report about them to their father, they hated him because Jacob loved him more, hence even his dreams made them more angry. Joseph's brothers took their hatred for him to the highest level of plotting to kill him, but they only succeeded in selling him to slavery.

Role of Contemporary Parenting in Discouraging Domestic Violence

Parenting in the contemporary time has roles to play in discouraging domestic violence.

(i) Building the Sibling Bonds: Children should grow up supporting and not being indifferent to or fighting each other. But this cannot take place when the seed of conflicts has been sown among them through careless and insensitive upbringing by parents. It will take deliberate efforts by parents to raise their children to be well-knitted together for continuous peaceful coexistence such that, "the child loves his or her brothers and sisters and is not overly jealous or competitive with any of the siblings. When arguments do occur between this child and a brother or sister, he or she is able to admit his or her faults or forgive the siblings so that reconciliation occurs" (Kennedy 1988,63).

(ii) Respecting Children's Individual Differences: Sometimes parents fail to avoid the pitfalls of admiring the quality of a child so much that they become blinded to the good things in the other children in the same home. That was the problem in the household of Isaac and Rebecca; Their individual qualities could have been blended by the parents, but they preferred to compare the two and make their different choices to the detriment of the mutual love that should have been in the family. "Comparing a child with another is like buying two products in the market; they may be processed by the same manufacturer, and have the same boxes, but taste entirely different. Each child has his own way, and by listening, or even keeping a diary of behaviour patterns, we can begin to determine what that way is" (Jeremiah 1988,11-10)

Parents should understand the peculiarities of their children and appreciate them as distinct personalities. Comparing a child with other exposes them to the temptation of being fond of a child and showing less concern for another.

(iii) Engaging the Older Children to Show Care for their Younger Ones: It is not out of place to imagine the possibility of a fourteen-year-old Ishmael helping to show care to a three-month-old baby Isaac if there was a healthy atmosphere for that. The older brothers of Joseph would not care for him, rather they planned his hurt and death; they eventually sold him into slavery. Older children ought to be given the opportunity of caring for the younger ones. This enables a close relationship to be developed between the children, but it also builds a partnership between older children and the parents. (Hyles 1972, 77-78) Parents stand to enjoy the long-run benefits if they cultivate a friendly environment between their older and younger children. It becomes more relieving on their part if the care and safety of the younger ones could be entrusted to those that are older.

(iv) Parents Seek Necessary Help: It is important to point the attention of present-day parents to the place of wisdom that can prevent domestic violence in their homes. It does not make any sense for any parent to by himself or herself, inadvertently introduce chaos into the family by preferring a child to another. Sometimes parents need to seek professional help as they raise their children. Among the many areas suggested by Haim G. Ginott in which parents need to seek help is being overprotective. A parent would not hesitate to do unnecessary things for a child in the name of loving him, even to the point of pampering and indulgence, and will place such a child over the sibling(s) (Ginnot 1965, 199). Parents should not leave themselves unguarded when their feelings begin to run wild to the point of showing their preference for a child to the other(s). Under such circumstances, it is wise to seek help, maybe from counsellors to recover quickly.

Conclusion and Lessons for Contemporary Public Mission

The theology of social inclusion provides lessons from the Old Testament that could be applied to the contemporary public mission. The atmosphere in the home must be conducive for a child to imbibe the value of decency, civility, tolerance, godly wisdom, and genuine love. The home in which such values are prevalent will be a good ground for healthy domestication and invariably nurturing of healthy citizenship.

From the families of the Old Testament Patriarchs, it could be deduced that parental preference does not enhance peaceful coexistence among children; children who grow up in such an environment often develop into enmity and conflicts among themselves. Unfortunately, such conflict spill over to the public, and if not properly handled, could lead to monumental losses.

From the way the Old Testament Patriarchs raised their children, the principle of deliberate cultivation of friendliness among young siblings could be drawn.

Agencies that address violent behaviours in the public arena must take their campaigns to the homes where the perpetrators are being bred.

The church must strengthen its ministry towards modern-day families for them to learn the danger of preferring a child to another child.

References

- Adenekan, V. (2022). *Is it good for parents to have a favourite child?*
<https://punchng.com/is-it-good-for-parents-to-have-a-favourite-child/>
- Chukwu, B. (2022). *2,334 domestic violence cases in four months worrisome – Lagos govt.* <https://punchng.com/2334-domestic-violence-cases-in-four-months-worrisome-lagos-govt/>
- Evans, Tony Undated: Retrieved from <https://www.preaching.com/articles/domestic-violence-in-the-church-have-we-gotten-it-wrong-too/>
- Ginnot, H. G. (1965). *Between Parent and Child*. New York: The Macmillan Company
- Haalanger, P. (2015). *Preaching About Domestic Violence is Hard-But We Must.*
<https://sojo.net/articles/troubling-tests-domestic-violence-bible/preaching-about-domestic-violence-hard-we-must>
- Hayford, J. W. (1991). *Editorial Notes in the Spirit-Filled Life Bible*. Nashville: Thomas Nelson Publishers.
- Hyles, J. (1972). *How to Rear Children*. Hammond, Indiana: Hyles-Anderson Publishers
Jeremiah, David. 1988. *Exposing the Myths of Parenthood*. Dallas: Word Publishing.
- Kennedy, J. (1988). *Your Prodigal Child- Hope and Comfort for Hurting Parents*. Nashville: Thomas Nelson Publishers.
- Magraw, J. (2022). *The Entrapment of the Relationship between Humans and Domesticated Animals* <https://religiousmatters.nl/the-entrapment-of-the-relationship-between-humans-and-domesticated-animals/>
- Marks, J. H. et al. (1983). *The Pentateuch*. Nashville: Abingdon Press
- News Agency of Nigeria (2015). <https://www.vanguardngr.com/2015/03/i-will-eliminate-discrimination-against-women-if-elected-says-buhari/2017>
<https://www.vanguardngr.com/2017/07/lagos-enlists-two-million-residents-fight-domestic-sexual-violence/2017> <https://www.vanguardngr.com/2017/08/many-women-cause-domestic-violence-actions-lagos-commissioner/>
- Novak, Sara 2022 *The Secret Reason Why Parents Play Favorites* .
<https://www.discovermagazine.com/the-sciences/the-secret-reason-why-parents-play-favorites>

HIGHER EDUCATION PARTICIPATION IN HUMAN SECURITY MANAGEMENT IN NIGERIA: IMPLICATIONS FOR NATIONAL DEVELOPMENT

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Abstract

Security as the basic human and societal need for development has pose challenges for national development in Nigeria. Therefore, the value of higher education is in its ability to meet the needs of the society and contribute to national development. This paper explores the concept of security especially from the point of objectivity and subjectivity and from international relations perspectives. It also considers the meanings of human security and national development. The paper shows that higher education needs to participate in human security for national development by providing a strategic plan for the country, collaborate internally and externally, recruit security staff with retention policies among others. The paper shows exploratory analysis of security dangers and insurgences retarding development trajectories in Nigeria. Consequently, it recommends that relevant, functional and globally competitive higher education should be developed and sustained, post secondary practical and technical and vocational programmes should be introduced and sustained by the government and teach ways of appreciating and respecting human values with a view to providing human security for national development.

Keywords: Higher Education, Human Security, Security Management, Threat, National Development

Introduction

Security is a vital global issue for the protection and safety of citizens. Adequate security did not only help to prevent crime, it also contributes to a positive image of a nation by creating a safe and welcoming environment for citizens, foreigners and neighbouring community. Security is a necessary pre-condition for peaceful co-existence and national development. The hierarchical human needs of Abraham Maslow equally recognized that security is one of the lower basic needs necessary to achieve higher needs in life. Therefore, security is the most basic need of human beings and societies. Recognizing the significance of security, section 14(1b) of the Constitution of Federal Republic of Nigeria unequivocally spells out as a fundamental objective of state policy that “the security and welfare of the people shall be the primary purpose of government (Federal Republic of Nigeria, 1999).

However, higher education marks the peak of the educational levels. The policy provision for higher education as spelt out by Federal Government of Nigeria (2004) is to develop and inculcate proper values for the survival of the individual and society. This might be why Nigeria is experiencing proliferation of Higher Educational Institutions (HEIs), especially universities, in the country. As at 2018, there are 90 public and 75 private

approved universities in the country against 80 public and 61 private in 2015 (National Universities Commission, 2015, 2018).

The constitutional responsibility of the government to provide security and the policy role of higher education to manage individual and societal survival explain HEIs stake in ensuring participation in security management. However, observation shows that the constitutional duty of security provision by government has not been substantially and substantively discharged as the high level of insecurity prevails in HEIs in the country. Hence, this paper sought to explore security challenges in HEIs; how higher education can be harnessed towards achieving and managing human security and consequently national development in Nigeria.

Methodology

This paper is based on a review of contemporary literature. Therefore, the scoping review was used to map existing literature in terms of nature, features and volume, as well as for clarifying working definitions and conceptual boundaries of the paper. This review approach has been proven to be very effective and can be conducted in the starting phase of a research project as most of the basic information can easily be collected and then used as a standard in the research process (Peter et al., 2015).

Google and Google Scholar were majorly used as search engines to source information from the internet. The key search terms were higher education, human security, security management and national development. The relevance of the articles accessed was determined based on the focus of this paper. After sorting, the relevant articles were categorized under keywords of this paper.

Security and National Development

Security is simply conceptualized as the condition of feeling safe from harm, danger or peril, the defence, protection and preservation of core values and the absence of threat to acquire values (Francis, 2006). Security is considered as any mechanism deliberately fashioned to alleviate the most serious and immediate threats that prevent people from pursuing their cherished values (Audu, Ajibola & Muhammed, 2014). Davies (2006) placed emphasis on absence of threat to acquire values that would undermine national cohesion and peace as criteria for determining what security connotes while Igbuzor (2011) explained that it is defence, protection and the absence of threats to acquire values.

Wolfers (1962) had earlier viewed security from both objective and subjective perspectives. Objectively, it measures the absence of threats to acquired values, while subjectively; it is the absence of fear that such values will be attacked. Jane, Ore, Larry and Hill (2009) define security as the ability of a nation to protect its internal values from external threats. Security of the state in the traditional sense meant the protection of the state, its boundaries, people, institutions, and values, from both internal and external attacks. According to Casble (1997) security is the maintenance of the core values of a society, and the freedom of the population from grave and existential threats. The core values are the basic principles around which any society is ordered, socially, politically or economically, such as the rule of law and fundamental freedoms.

Security in international relations means “national security” or the protection of the state from external threats, a meaning which emerged from the practices of international politics after the First World War. Security is said to include the safety of individuals from violence or crimes; religious peace of mind, and financial measures to maintain certain standard of living. National security is also seen in the context of state boundaries, in line with the state’s ability to preserve the core values of its society, its territorial integrity, and the physical security of its citizens.

The concept of security was re-defined by UNDP (1994), which for the first time introduced the notion of human security as “safety from chronic threats such as hunger, disease and repression and protection from sudden and hurtful disruptions in the pattern of daily life”. According to UNDP (2014), human security means “that people can exercise these choices safely and freely, and that they can relatively be confident that the opportunities they have today are not lost tomorrow.” It also noted that while there two main aspects of human security, that is “freedom from fear” and “freedom from want” that the concept of security has always been linked only to the freedom of want.

There is the need to adopt the all-encompassing change in definition from “an exclusive stress on territorial security to a much greater stress on human security” and “from security through armaments to security through sustainable national development.” Human security therefore covers the economic, food, health, environmental, personal, community, and political security. The concept of human security, according to the UNDP’s Report, supplies “early warning indicators” to signal “the risk of national breakdown”, and such indicators include human rights violations, ethno-religious violence, high unemployment, food insecurity, etc. Accordingly therefore, the “world can never be at peace unless people have security in their daily lives. The search for security lies in development, not arms. Human security and national development go together because it will not be possible for the community of nations to achieve any of its major goals – not peace, not environmental protection, not human rights or democratization, not fertility reduction, not social integration, except in the context of national development that leads to human security. Yet, it is important to note that human security is not equated with human development. Human development is a process of widening the range of people’s choice. Human security means that people can exercise these choices safely and freely – and that they can be relatively confident that the opportunities they have today are not totally lost tomorrow.

Dambazau (2014) states that human security is meant to protect the vital core of human lives in ways that enhance human freedoms and human fulfillment. He stated further that human security means protecting fundamental freedoms – freedoms that are the essence of life. It means protecting people from critical (severe) and pervasive (widespread) threats and situations. It means using processes that build on people’s strengths and aspirations. It means creating political, social, environmental, economic, military and cultural systems that together give people the building blocks of survival, livelihood and dignity.

However, the security situation in Nigeria is observed to have been operating a revolving-door system. Obviously, since the return of democratic government in May 1999, Nigeria had witnessed series of security challenges involving resource-based conflict, ethno-

religious crisis and communal clashes. The climax of these security threats is the insurgence of Boko Haram sect in the North-East, Nigeria and the most recent Niger Delta Avengers in the South-South, Nigeria. Chief among them is ethno-religious conflicts that tend to have claimed many lives in Nigeria. The conflicts, crisis and clashes are as a result of situations in which the relationship between members of one ethnic or religious and another of such group in a multi-ethnic and multi-religious society is characterized by lack of cordiality, mutual suspicion and fear, and a tendency towards violent confrontation. The achievement of desired level of internal security particularly since 1999 has been elusive. This may be better understood in Table 1 which gives concise highlight of various security threats in the country over the years.

Table 1: Security threats in Nigeria, place most common and group involved

S/N	Security Threats in Nigeria	Place Most Common	Group involved
1	Armed Robbery	All parts of the country	Armed Robbers
2	Militancy	All parts of the country	MASSOB, MOSOP, Ijaw Militia, Itsekiri Militia, The Niger Delta Militants (The Avengers), Oodua People's Congress (OPC), Arewa Peoples' Congress (APC)
3	Piracy	Nigerian Creeks and Rivers	The pirates/illegal oil dealers/bunkers
4	Kidnapping	South East and South West	Unemployed youths
5	Abductions and Killing	North East Nigeria	Boko Haram
6	Cattle Rustling	Kaduna, Kebbi, Nasarawa, Benue, Zamfara and Plateau States	Cattle rustlers, herdsmen and farmers
7	Cultism	All parts of the country	Cultist

Source: Adapted from Mc Leva, 2016

Table 1 shows that there is security threat in all parts of the country in different disguise. It is against this backdrop that this paper addresses the interface between higher education, human security and national development in Nigeria.

National development, on the other hand, is not confined to macro-economic forces of growth, but also focuses on the improvement of the individual and collective human condition, increasing choices and participation, equality, standards of living and well-being, the environment and sustainability, and on another level, development as a human and ways of being. Accordingly, development is not a stage to be attained or a goal to aim, rather it is a constant process of improvement in which education, research, and service play prominent roles in creating positive change in the self, the people, the institutions and structures. Examining the concept from the perspective of human security, national development equals human development, the idea of expanding the choices of people and

giving them a chance to live full lives. It is in line with this idea that the UNESCO (2012) came up with a composite of indicators on life expectancy, education, and command over the resources needed for a decent living. The UN classified the 187 countries in the world into four groups in accordance with the levels of human development: “very high”; “high”; “medium”; and “low”. In the 2012 UNESCO Human Development Index, Nigeria was ranked 153rd out of the 187 countries assessed (life expectancy 52.3 years); inequality (adjusted HDI value 0.276); education (means years of schooling – 5.2 years); poverty (multi-dimensional poverty index (percent) – 0.310 – with 54.1% of 2008 population lived in multi-dimensional poverty); and income (GHI per capita in PPP terms – US\$2,102).

Higher Education Participation in Security Management: Challenges and Roles

There appears to be a severe security challenges facing HEIs in Nigeria. Janin (2008) observed that lack of higher education, is a major obstacle to accessing tools that could improve peoples’ lives. He noted the relationship between lack of higher education, poverty and poor health, especially among adolescent/young adult, conditions that diminish their opportunities for social and economic advancement. This is a real problem in Nigeria, considering the youth (age 16-25) population in the country, and since most of them are poor, rural dwellers, they are invariably excluded due to lack of opportunities to higher education. Contemporary security challenges in Nigeria HEIs abound. These challenges as submitted by Ajadi (2018) range from attacks leading to death and injuries on campuses, destructions of infrastructure and academic calendar, decline in quality higher education, staff shortage, to reduction in students’ intake by HEIs where security issues are pronounced.

Higher education plays a necessary and an increasingly important role in human, social and economic development. According to the World Bank (1998), education in general, and higher education in particular, is fundamental to the construction of a knowledge economy and society in all nations. As a private good, higher education is said to provide considerable value to individuals; to the economies where educated individuals live and work; and society in general. Where investment in higher education is substantial, the expectation is that of higher economic growth and prosperity.

In an analysis of 47 World Education Indicators (WEI) in Europe by WEI Program, UNESCO Institute of Statistics and the Organization for Economic Cooperation and Development (OECD), it was found that better educated people were more likely to be in work and, if economically active, less likely to be unemployed. Accordingly, access to and completion of higher education is a key determinant in the accumulation of human capital, a pre-requisite for human rights and civil liberties, good health, clean environment, and personal safety. In all the WEI countries, it was discovered that the labour force participation rates increased with the level of education attained by individuals; and better qualifications also attracted higher wages for individuals. Similarly, data from 49 countries of the Asia Pacific region has been used to demonstrate the significant effect of higher education on the economic growth of nations. The result has shown that the larger the stock of population with higher education, the higher the prospects of economic growth. Likewise a research conducted by Gibbs (2005) in the University of Arizona found that there are three major ways higher education influences the economic well-being of society:

- Direct expenditures by the institutions, their employees, and students, could impact on the local economy.
- Higher education provides financial and other benefits to the individual who pursues advanced education and to the society in general. The average earnings of individuals are closely related to their educational attainment. Furthermore, society benefits from an educated populace in a number of ways. The average wage, for example, is higher in communities with substantial proportion of highly educated workers.
- Institutions of higher education are increasingly focused on human capital development. Thus, universities are the sources of key research and development innovations that can also be beneficial to society and conducive to economic growth.

Examining the impact of higher education on economic development, Sampson, (2014) confirmed the critical role of colleges and universities in economic development efforts. According to him, higher education and economic development are inextricably linked to one another, and for any country to be successful in economic development, universities must be key partners throughout the process. There are many regional and international organizations that can partner with Nigerian universities to achieve some strategic goals for national development. Already evidence of the impact of higher education partnerships involving USAID/HED and 13 Higher Educational Institutions in Southeast Asia, for example, has been recorded. Of the 13 institutions involved in the partnership projects, 5 focused on the security; 5 on education and information technology; 2 on health/medical issues; and 1 on community development. These partnerships not only provide opportunities for human capital building and institutional capacity strengthening, they also provide numerous opportunities for “positive public diplomacy” in terms of culture and language studies; helping faculty find creative ways to implement research studies; explore international topics; and stimulate students to think about globalization issues in relation to Southeast Asia, in this case.

In addition to the above, higher educational institutions are also expected to participate in human safety for national development in the following under listed ways:

Development of a strategic approach: Higher education needs to assist the society in developing a strategy that integrates policies on human safety and security which will help in providing an effective security service and achieve national development. Specifically, the approach should support the nation’s corporate objectives, help create a safe environment for citizens, foreigners and the environment, ensure that security management courses are available in higher education, develop expertise for integrating new security technology, provide qualitative and quantitative management statistics (expressed, for example, per capita), and undertake periodic reviews to respond proactively to changes in the environment, crime patterns, procurement processes and so on.

Collaboration and liaison: Higher education can collaborate internally and externally, higher education institutions can make information on the use of a variety of resources and ideas to improve security and combat crime. Such partnerships are more effective if they have the commitment and involvement of government executives. Internally, collaboration

will involve security services unit within the institution, students and staff. Externally, it can include liaison and joint initiatives with the local police and other emergency services, the local community, local authorities, hospital trusts, and local business groups.

Recruitment and retention of security staff: The quality of security services depends upon the calibre of the staff handling the security department. Higher education institutions have the machinery that can assist in recruitment of professional security officers through the consultancy outfit for the government. The recruitment will be supported by policies that will encourage security staff retention rate

Training: Higher education institutions can provide short and long term security training to promote both a positive image of the nation and the morale of security staff and the institution themselves. Aspects to be covered include the security staff approaches to citizen request, specific tasks and responsibilities of the citizens, rule of law, and good practice guidelines. This may be done through short term training for security personnel. The Chief Security Officers (CSO) of the country can recommend training schemes which cover all grades of security personnel in the country by higher education.

Risk management: Key roles for the higher education are to determine the objectives for the nation's security services, and to identify and manage the risks that could prevent achievement of those objectives within and outside the institution. Higher education should be able to provide criteria for assessing and prioritizing security risk in the entire nation. This can be from result of studies in security issues carried out in the institution. Security is an important part of the higher institution's approach to managing a wide range of risks. Good risk management provides upward security for business activities and administrative functions in the community and the country at large. This can be used to complement the nation's business planning and resource allocation processes at strategic or intermediate levels. Risk management is not a process for avoiding risk, but it can demonstrate that the risks have been identified, and that the exposure to risk is both understood and acceptable. This provides assurance for business and organization which will reduce unemployment and add value to national development

Security Report Reviews: Higher education must be able to consider the best way to assess the national security services situation and suggest ways to improve on or change the security style resulting from the recommendations. Overall responsibility for reviews may fall to a head of the government. It may involve the higher institution's professional advisers and security staff. The formulation of short-term 'swap/loan' schemes of experienced security managers between higher education institutions – to act as independent security consultants/experts to government – could also be considered.

Higher Education and Human Security in Nigeria

In an ideal context and well governed nation, there is a symbiotic relationship between higher education and security. Insecurity undermines education at any level and absence of education for citizens constitute a constraint on capacity for sustainable security in multi-faceted dimensions encapsulated in human security framework. Higher education, therefore, produces tolerant and civil citizens who are able to understand and live with

people from different economic, religious, ethnic and cultural backgrounds and other forms of identities.

Olaitan (2007) identified four pillars of the higher education curriculum that are central to national development as entrepreneurship, environmental and social consciousness, ethical values, and scientific and technical knowledge. Meanwhile, higher education plays an increasingly vital role in building, promoting and sustaining development at local, national and international levels. This is done through different organs (Universities, Colleges of Education, Polytechnics, Monotechnics) providing this level of education. While some conduct important research at an international level in technology and sciences, which can have beneficial impacts for the poor and for national economic growth, others operate at a more community level focused directly on learning and participation for sustainable livelihoods and poverty alleviation through continued education and training or institutes while others can be universities that specialize in specific areas of research and instruction (Yusuf & Afolabi, 2014; Audu, Ajibola & Muhammed, 2014).

Yusuf and Afolabi (2014) submitted that teaching, research and development functions of the providing agents of higher education are very crucial and instrumental to the production of high level manpower that will excel in their various leadership positions and contribute significantly to human security. This why Dambazau (2014) said higher education is a source of security; security is a prerequisite for development; and development guarantees security. This mean that the value of higher education is in its utility to the society: educated population that is unemployable, for example, serves no purpose to the society; likewise, educational programs that do not meet the needs of society are not likely to contribute to national development.

In Nigeria, most individuals involved in criminal activities lack higher education which often influence their criminality and vulnerability to living conditions that subject them to intensive surveillance; their inability to avoid detention, arrest, trial and conviction. Paradoxically, persons with low education and income are more likely to be victims of crime and other forms of insecurity. Low education often translates to absence of competitive skill, adequate income, exclusion from participation in vital economic, political and social organisations and relations; lack of access to adequate food and nutrition, housing, health care and efficient pubic emergency and safety services, all of which are elements of human security. Children with low education are more likely to be recruited as thugs, insurgents and terrorists through indoctrination. Lack of education therefore is itself human insecurity and is a source of vulnerability to other forms of insecurity. Arising from these, National security is simply the protection and preservation of citizens and foreigners from fear, peril, anxiety and danger that threaten people's survival within the sovereignty of the nation. This has therefore makes security very vital for sustainable national development as peace and security are a direct consequence of real development.

Higher education in Nigeria is currently plagued by several problems hindering it from serving expected roles in promoting human security and national development. Some of these problems have their roots from inadequate allocation and inefficient management of

resources for effective teaching, learning, research, publication and community service; poor oversight of admission policies and capacity as well as admission and employment in flagrant violations of the constitution and federal character policy, thereby turning HEIs into enclaves of ethnic and religious groups instead of universal and globally competitive centres of learning, research and scholarship; politics and emphasis on the appointment of indigenes as principal officers above the criteria of merit, integrity, and academic excellence; centralization of curricula design by the regulating agencies (NUC, NBTE and NCCE) under the guise of developing benchmarks, quality assurance and accreditation resulting in erosion of academic autonomy of departments; Non-adherence to policy guidelines such as admission quota for each programme resulting in excessive admissions and burden on infrastructure and personnel that erode quality and professionalism; inadequate funding from the government and inappropriate management of available fund for staff training at the graduate level by principal officers; poor conditions of service in relation to remuneration, research facilities and opportunities, local and foreign conference attendance; training of junior academic staff, access to information technology. These conditions are just a sample of problems that erode the standard, competitiveness, and integrity of the Nigerian higher education system, and its capacity to contribute to the national security and development. In many instances, these identified problems aggravate insecurity and low human capital development. The institutionalization of the foregoing culture and crisis of higher education and scholarship resulted from a general lack of understanding of the significant role of education in national security and development.

Security Challenges in Nigeria: Implications for National Development

In the Nigerian context, scholars have identified several causes of security crisis that pose grave consequences to national development (Salawu, 2010; Okorie, 2011; Nwanegbo & Odigbo, 2013; Audu, Ajibola & Muhammed, 2014). Over the past decades, Nigeria has experience a palpable intensification of religious polarization, manifest in political mobilization, sectarian social movements, and increasing violence (Lewis, 2002). Ethnic and religious affiliations determine who gets what; it is so central and seems to perpetuate discrimination. With over 400 ethnic group belonging to different religious background, Nigeria since independence has remained a multi-ethnic state, which has been grappling and trying to cope with the problem of ethnicity and ethno-religious conflicts (Salawu, 2010). This has occurred in states like Ogun, Lagos, Abia, Kano, Bauchi, Nassarawa, Plateau, Taraba, Ebonyi and Enugu (Onyishi, 2011) with varying degrees of damages and loss of lives. For instance, the ethno-religious crisis in Plateau State has persisted and implicitly reinforces the problem of indigene/settler dichotomy that seems to lack constitutional remedy. It has become so prevalent in Jos, such that made Plateau State go down with the unenviable record as the first state in the Fourth Republic where a state of emergency was declared (Uhunmawuangho & Epelle, 2011). However, the inability of the Nigerian leaders to tackle development challenges, distribute state resources equitably and render good services to the people appear to be one of the causes of ethno-religious violence. Salawu (2010) argued that a major cause of what is now seen as ethnic-religious conflicts in Nigeria has to do with the accusation and allegations of neglect, oppression, domination, exploitation, victimization, discrimination, marginalization, nepotism and bigotry.

Another cause of security challenge in Nigeria is the grinding youth unemployment. Youth unemployment seems to have contributed in the rising cases of violent conflict in Nigeria. Arguably, unemployment seems to be a global trend. Unemployment according to the International Labour Organization could be seen as numbers of the economically active population who are without work but available for and seeking work, including people who have voluntarily left work (World Bank, 1998). However, in Nigeria, unemployment situation deteriorated sequel to state inability to put in place appropriate mitigating mechanisms to abate or control its spread and impacts (Nwanegbo & Odigbo, 2013). For instance, over ten million (19.7%) Nigerians were unemployed in the first quarter of 2009 and by the fourth quarter of 2016, the rate moved to 35.3 percent (National Bureau of Statistics, 2017). From the above, it can be stated that unemployment has a severe negative implication on national development in Nigeria as 55.3percent of its productive force (between ages 15-34) are unemployed (National Bureau of Statistics, 2017). What this means theoretically is that poverty and unemployment increase the number of people who are prepared to kill or be killed for a given course at token benefit Salawu (2010). It could predispose one to engaging in illicit activities that would undermine security of the environment.

The third issue is related to political aspect in Nigeria. Apart from the issue of poor governance and leadership failure, the electoral politics appears to have assumed a satanic dimension since 1999. A cursory look at electoral politics in Nigeria since 1999 depicts a catalogue of election related assassinations as shown in Table 2.

Table 2: Some political related assassinations in Nigeria (2001-2016)

Victim	Status	Date
Chief Bola Ige	Attorney General of the Federation	December, 2001
Barnabas Igwe and his wife	Chairman, Nigerian Bar Association, Anambra	September, 2002
Harry Marshall	National Vice Chairman for the South-South Zone of All Nigeria Peoples Party (ANPP)	March, 2003
Engr. Funsho Willians	Gubernatorial candidates of the People Democratic Party (PDP) in Lagos	July, 2006
Dr. Ayodeji Daramola	Gubernatorial candidates of PDP in Ekiti State	August, 2006
Dipo Dina	Gubernatorial candidates of AC in Ogun State	January, 2010
Senator Dantong Gyang Daylop	Serving Senator of the Federal Republic of Nigeria	July, 2012
Honourable Gyang Fulani	The majority leader of Plateau State House of Assembly	July, 2012
Olaitan Oyerinde	Principal private secretary to Edo state governor	May, 2012
Engr. Albert Ukpanah	Akwa Ibom senatorial candidate	March, 2014
Ganiyu Akanbi Bello	Ethic/Political leader	August, 2014
Chief Jerimiah Abu	A main PDP strategist in Kogi State	September, 2015
Hon. Monday Eleanya	Member, River state House of Assembly	February, 2016
Hon. Gideon Aremu	Legislator and lawmaker in Oyo state	July, 2016

Source: Authors' compilations

Table 2 shows a compilation of politically related assassinations that occurred shortly after the military rule in Nigeria. Indeed, this incessant political killing and many other political

violence in the country could be attributed to over-zealousness and desperation by political class to win elections or remain in office at all cost.

Considering the complexity of the context, scholars have increasingly interlinked security and development concerns (Chandler, 2007; Nwanegbo & Odigbo, 2013; Dambazau, 2015). In fact, no sustainable development can be achieved in the atmosphere of conflicts, crisis and war and Nigeria is not an exception. Understandably, security and development are two different concepts but tend to affect each other, making both concepts inseparable. This relationship has recently triggered debates on security – development nexus (Stan, 2004; Chandler, 2007; Audu, Ajibola & Muhammed, 2014). Therefore, a growing number of governments across the world and international institutions are becoming more aware of the need to integrate security and development programmes in their policy interventions.

Conclusion

This paper looked into the challenges and roles of higher education in participation in human security management for national development. It highlighted some of the roles of higher education and identified the challenges facing HEIs in security provision. The paper therefore suggested that relevant, functional and globally competitive education system paying particular attention to improving quality of education at the primary and secondary education as input into higher education should be developed and sustained. Introduction of a post-secondary practical oriented technical and vocational education lasting to absorb secondary into critical competencies required for national security and economic development. Equally, HEIs should recruit staff whose expertise are applied toward enhancing national security and development; researches in science, technology and social sciences should generate findings that will improve military technology, organisation and deployment; surveillance, crime prevention and investigation. Collaboration between the HEIs and security agencies in the areas of information sharing, training and research should be strengthened while institutions should produce qualified personnel for security agencies as personnel and consultants. Higher education teachers should teach appreciation and respect for human values and develop capability for critical thinking and analysis that minimize threat to security.

References

- Ajadi, O. T. & Adebakin, A. B. (2013). Access to education: A tool for curbing security challenges in Nigeria. In Ayeni, A. O., Emetarom, U. G., Abdulkareem, A. Y., Undie, J. A. & Okon, J. E. (eds.). *Managing Education for National Security*. Publication of the Nigerian Association for Educational Administration and Planning (NAEAP). Pp.409-421.
- Ajadi, O. T. (2018). Peace and security education: Roles of universities in Nigeria. *KIU Journal of Education*, 13(1), 41-61.
- Audu, C. T., Ajibola, A. L. & Muhammed, N. N. (2014). A nexus between higher education, security challenges and sustainable development in Nigeria. *IOSR Journal of Research & Method in Education* 4(4), 16-22.

- Casble, A. (1997). *Transnational organized crime and international security*. Institute of International Relations, Working Paper No. 19.
- Chandler, D. (2007). The security-development nexus and the rise of anti-foreign policy. *Journal of International Relations and Development*, 10, 362–386.
- Dambazau, A. (2014). Education, security and national development: The case of Nigeria. In A. A. Aderinto, A. Adediran & A. I. Alarape (Eds.). *Higher education and national development*. Ibadan: Ibadan University Press.
- Davies, J. C. (2006). Towards a theory of revolution. *American Sociological Review*, 27, 5 – 19.
- Escrigas, C. (2008). *Higher education in the 3rd World*. London: Palgrave Macmillan
- Federal Government of Nieria (2004). National Policy on Education. Lagos: NERDC
- Francis, J. D. (2006). Peace and conflict studies: An African overview of basic concepts. In G. B. Shedrack (Ed.). *Introduction to peace and conflict studies in West Africa: A reader*. Ibadan: Spectrum Books Limited.
- Gibbs, A (2005). The importance of higher education on total well-being. University World News (Special Edition).
- Igbuzor, O. (2011). Peace and security education: A critical factor for sustainable peace and national development. *International Journal of Peace and Development Studies*, 2(1).
- Jane S. Gore, E., Larry, I. & Hill, O. (2009). Evidence of impact of higher education partnerships in Southeast Asia: An assessment of 13 Higher Education Partnerships, USAID.
- Janin, H. (2008). *The University of Medieval life, 1179 – 1499*. New York: Persues Books.
- Lewis, P. (2002). *Islam, protest, and conflict in Nigeria*. Washington: Center for Strategic and International Studies (CSIS), Africa Notes No. 10.
- McLeva, F. (2016). 7 deadly security threats Nigeria is facing. Retrieved from <http://www.dailytrust.com.ng/news/general/7-deadly-security-threats-nigeria-is-facing/146610.html#FExVx8blh8OLxCLp.99> on the 19th September, 2016.
- National Bureau of Statistics (2017). *Unemployment/under-employment: 4th quarter report*. Abuja: National Bureau of Statistics.
- National Universities Commission (2015). List of approved universities in Nigeria. *Bulletin*, 10(45), 22-23.

- National Universities Commission (2018). List of approved universities in Nigeria. *Bulletin*, 13(38), 21-22.
- Nwanegbo, C. J. & Odigbo, J. (2013). Security and national development in Nigeria: The threat of Boko Haram. *International Journal of Humanities and Social Science*, 3(4), 285-291.
- Okorie, I. (2011). Insecurity: consequences for investment and employment. *The Punch*, Thursday, September 9, pp37-38.
- Olaitan, T. O. (2007). Shaping human development: Which Way Next? *Third World Quarterly*, 20(4), 743-751.
- Salawu, B. (2010). Ethno-Religious conflicts in Nigeria: Casual analysis and proposal for new management strategies. *European Journal of Social Sciences*, 13(3).
- Sampson, A. D. (2014). Our universities: accelerators for economic growth. *Economic Development America*, Winter
- Stan, F. (2004). *The Security-Development nexus: conflict, peace and development in the 21st century*. New York: IPA Report.
- UNESCO (2012). *Human Development Index*. Paris: UNESCO
- Wolfers, A. (1962). *Discord and collaborations*. Baltimore: Johns Hopkins University Press.
- World Bank (1998). *World development indicators*. Washington, D.C.: World Bank.
- Yusuf, M. A. & Afolabi, F. O. (2014). Effective management of tertiary education in Nigeria as a panacea to good governance and national security. *Higher Education of Social Science*, 7(3), 1-6.

SCIENCE AND TECHNOLOGY EDUCATION

TEACHER'S DIGITAL COMPETENCE: AN ESSENTIAL TOOL FOR VIRTUAL CLASSROOM TEACHING

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Abstract

Digital competence is an essential tool in virtual classroom teaching for seamless demonstration of self-efficacy. This paper reviewed teachers' digital competence as an essential tool for virtual classroom teaching. The study posited that factors that determine a teacher's digital competency include information and data literacy, computer media literacy, digital content creation and programming; teachers need to be digitally competent in the virtual classroom to be able to improve teaching and stimulate learning, master the computer systems, websites and tools, modelling of didactic practice on the appropriate use of technology. Based on these, the way forward is that teachers should be self-motivated to go for more training that could further improve their information and data literacy, problem-solving and critical thinking skills to remain relevant in the ever-changing virtual classroom environment. Teachers need to constantly prove their skills in teaching and stimulating learners, encouraging the active participation of students while transferring knowledge and technology skills to them. Teachers should endeavour to always prove digital competency as an essential tool in virtual classroom teaching through continuous demonstration of self-efficacy, informed decisions on appropriate technologies for subject areas and for expression of functional skills. The use of TPACK (Technology, Pedagogical, content knowledge) applications explains the interrelationship between the levels of digital competencies

Keywords: Teachers' digital competence, virtual classroom, teaching, teachers

Introduction

Teachers' digital competence has become increasingly important in the 21st century for improving the quality of education which altered both the learning environment and the learning due to global digital transformation which adversely affected the creation of curricula and instructional techniques. Since the transformation process must always start with the teacher in the first place the teacher is a crucial component in the process of integrating technologies with learning in the classroom. Pablos, Mattarranz, Casado-Aranda, and Otto (2022) define the European Union as "the safe, interactive, critical, and responsible use of digital technology for learning, ease of work, and participation in society." Given that it holds the key to the future economy and income generation, digital competence is one of the most crucial skills that citizens in general, and teachers in particular, need to learn in modern society. Thus, the national plan for digital skills recognizes information data literacy, communication and collaboration, digital content creation, safety, and problem-solving as essential future competencies for teachers to

perform their duties as well (MINECO, 2021). It is important to note that the educational context has recently given digital competence a significant amount of attention. This is due to the fact that using technology has become imperative in daily life, indicating that many citizens' professional progress now relies on the effective and suitable use of digitalization processes (Hjukse, 2020)

The COVID-19 outbreak prompted people to look for alternatives that allowed personal interaction without the necessity for face-to-face contact or manipulations of replaceable physical format both at an educational and social level. The search was initiated due to the lockdown and the need to avoid direct physical contact with others. The use of digital technology took a crucial position; the only way for the educational system around the world is to guarantee the continuity of students' activities in the new environment by integrating digital technology into teaching-learning activities. Teachers' digital competence includes technical know-how, efficiency and safe use of technology for learning. This became a focal point for conveying instructions to students, especially during the COVID-19 pandemic that required a lockdown to reduce and stop the spread of the pandemic between the years 2020 and 2021 globally. The need to continue teaching despite the lockdown forced teachers to teach students virtually which calls for new skills and knowledge to be mastered by professionals. The outcome created an additional window of opportunity to demonstrate how simple it is to offer instructions online. The need for teachers to be digitally proficient has become critical for efficient, creative and innovative learning to have the greatest impact. This will make it possible for everyone to benefit fully from the digital economy to which experts are slowly adjusting. The educational sector is not excluded, teacher's digital abilities are crucial to comprehend new technologies, adapting and engaging with the development of virtual classrooms system (Karunaweera, 2021). This also involves the use of digital technology (DT) to teach the students to resolve a variety of issues that arises in both their academics and personal lives.

The two methods for carrying out activities that improve digital competency are workshops and training. This can also be accomplished by outlining how information and communication technologies can be used by teachers to accomplish jobs easily. It is equally important for promoting schools, publishing works and providing the knowledge needed to interact with the expansion of artificial, virtual and digital systems (Konig, Jager- Biela & Glutsch 2020). In practice, teachers' digital competence helps to facilitate learning and acquiring digital chances, carry out the process of improving and innovating teaching in accordance with the needs of the digital era, and contribute to professional development in line with societal change. For the purpose of connecting with the students, this new teaching method or virtual classroom uses mobile devices interfaced with internet connectivity, desktops, computers, laptops, software applications and mobile phones Apps (Suwartono & Aniuranti, 2018). In light of the above, this article explores teachers' digital competence as an essential tool for virtual classroom teaching.

Teachers Digital Competence

The concept of teachers' digital competence refers to the ability of teachers to use digital technologies effectively and appropriately in their teaching practices. This includes not only technical skills but also the ability to integrate digital tools and resources into their

pedagogical approaches, adapt to new technologies, and facilitate digital literacy among their students. In today's digital age, technology has become an integral part of teaching and learning. Teachers who possess digital competence are better equipped to create engaging and interactive learning experiences for their students. They can use digital tools and resources to provide personalized learning opportunities, facilitate collaboration and enhance student engagement. Digital competence allows teachers to be current with new development and trend in their subject areas, as well as leverage the vast resources available online to enrich their instructional materials.

Furthermore, digital competence enables teachers to develop their own digital content, such as online courses or multimedia presentations, to supplement or replace traditional instructional materials. To develop digital competence, teachers need to engage in ongoing professional development and training. This involves not only learning how to use specific digital tools but also developing an understanding of how digital technologies can be used to enhance teaching and learning. Teachers need to develop digital literacy skills and be able to critically evaluate digital resources to determine their suitability for use in the classroom. It also enables teachers to create engaging and interactive learning experiences with new developments in their subject areas and provide students with the skills they need to thrive in a digital world. using digital technologies to deliver instructions and learning will help to achieve objective four of the sustainable development goals "Providing education is vital to creating a peaceful and successful world since education offers individuals the knowledge and skills, they need to be healthy, acquire jobs, and cultivate tolerance" the goals provision adds. (United Nations, 2020). The implication of this is that teachers' digital proficiency can improve quality education, which would equal the accomplishment of UN Sustainable Development Goal NO .4 of the 2030 Agenda which is to boast the quality of education and create learning opportunities. Consequently, the awareness and use of digital resources by teachers during COVID-19 gave them an edge to be familiar with the tools.

Why Teachers Need to Be Digitally Competent

Teachers must start to see digital literacy as a tool that will help them to fulfil the needs of 21st-century, students and raise the bar of instructions by giving students the mentality and skills they need to succeed in the present and in the future (Iheanayinchukwu, 2018). This necessity for teachers to be digitally proficient exists despite the fact that access to professional development and lack of incentives for training remains a major roadblock to the quality of teaching and outputs in today's competitive world.

As stated by the World Economic Forum in the year 2017 annual general meeting, the goal of digital competency training for teachers is to provide them with the tools they needed to be innovative and creative in order to remain relevant, stimulate creativity and develop scientific understanding: to help them develop values and global skills, gain digital intelligence on how technology can be used as a pedagogical tool, learn how to personalized can have an inclusive learning-teaching environment. Additionally, in order to use technology to guide and control the teaching-learning processes and help students to develop their own digital competencies teachers must be digitally proficient in order to support digital technology in a variety of ways. Catusus, Romeu & Colas (2020) identify

other goals including enhancing learning and motivating students to meet learning objectives, teacher's mastery of systems, websites, and tools, demonstrating to learners the proper use of technology through didactic practices, and encouraging teacher's active participation, particularly in the learning aspects of transferring knowledge technology and skills to students.

Utilising technology will not only make learning enriching for students but also improve the teaching process. A teacher that is computer literate can use many apps and resources at his disposal to deliver more thorough instruction, thus, creating lesson plans and delivery methods that are most suited and cater for individual differences in students. Similarly, teachers can use technology to provide information based on student's requirements. Teachers who are digitally inclined can offer vital advice to those who create educational technology on pedagogical approaches to a particular subject (Muharlisiani, Bariroh, Mulawarmah, & Abadi, 2022). This will help to improve both the quantity and quality of information that can be used for instructional purposes.

In addition, it offers teachers the platforms that make communication and collaboration easier, thus, creating opportunities for learning fresh significant topics, thereby, fostering innovation in ways that are previously unthinkable. (Anekwe, 2017) Also, it will give the opportunity to teachers who possess digital skills to be more equipped and to deliver flexible, value-based-education to students in the digital age (Huang 2018), spend less time by utilizing a variety of resources, employ various strategies to create a more welcoming and fun atmosphere which inspires students (Raviv, 2020). Being digitally competent enables teachers to engage students more actively and effectively in their learning.

Digital Competence as an Essential Tool in Virtual Teaching

Although the research on the effectiveness of virtual classrooms is very limited, especially with regards to challenges of addressing students learning difficulties, in the face-to-face classroom, teachers are able while in the face-to-face classroom, teachers can guide students on the spot when they are facing challenges in completing the task. However, the traditional learning approaches cannot just compete with some of the efficiencies that technology offers, considering the popular use of smartphones and other wireless technology devices. Thus, it makes sense for educational institutes to make effective use of integrating technology into the classroom.

To put it in another way, the teacher needs to help students become used to the web-based learning environment, which includes the use of various tools for interaction between the students and having group discussions. Most of the students awarded the interaction and ability to build problem-solving skills high marks (Yagci cited in Liew Liu & Tail, 2021) Additionally, Janssen, Konings, Merrienboer cited by Ran & Gandi (2022) stated that digital competence is a crucial tool in virtual teaching since it aids in seamlessly demonstrating self-efficacy; making an educated decision on the most appropriate technologies for subject areas; learning about and with digital technologies; and specialized and advanced competence for job and artistic expression; for general knowledge and foundational abilities.

TPACK Theory

This paper is anchored on the TPACK theory. The leading proponent of the idea was Punya Mishra and Matthew, J. Koehler (2006) based on their framework on TPACK. This focuses on technology knowledge (TK), pedagogical knowledge (PK) and content knowledge (CK) and offers a productive approach to many dilemmas that teachers face in implementing educational technology in their classrooms. Therefore, by differentiating among the three types of knowledge, the TPACK framework outlines how content (what is being taught) and pedagogy (how the teacher imparts the content) must form the foundation for any effective technology integration with education. The three types of knowledge- TK, PK and CK are combined and recombined in various ways within the TPACK framework. TPACK has remained such a powerful principled for over a decade because the present constituents allow room for a range of specific educational circumstances. This means any effective implementation of technology in the classroom requires acknowledgement of the dynamic, transactional relationship among content, pedagogy, and technology- all within the framework of different schools, classrooms, and cultures. Factors to always consider include an individual indicator, the students' grade level, the class demographics, and different approaches to the integration process.

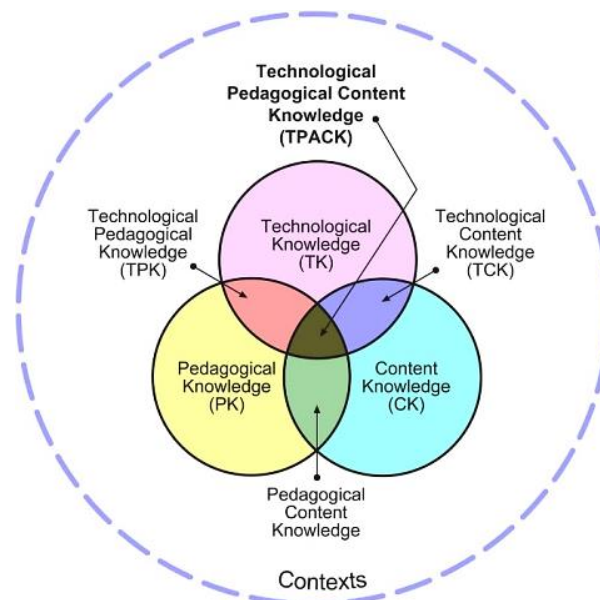


Figure 1: TPACK framework Educational Technology

The learning process, according to TPACK, places the teacher in a primary role wherein he or she leads the teaching and learning process in the school using his or her digital competence through drill and practice with technology devices. Therefore, the learner's role is that of thinking or doing as directed by teachers. TPACK has been criticized just like every other theory for instance the use of technology will be discouraged if a teacher receives insufficient post-training support, internet connectivity, unstable power supplies and a lack of inspiration for leveraging technology to generate worthwhile tasks are further difficulties (Rani & Gandhi, 2022). More so, the teacher is being put in a strong position, these difficulties could be overcome through the use of solar connectivity, use of mobile

phones since TPACK places the teacher in a primary role to lead the teaching and learning process in the school using digital competence through drill and practice with technology devices.

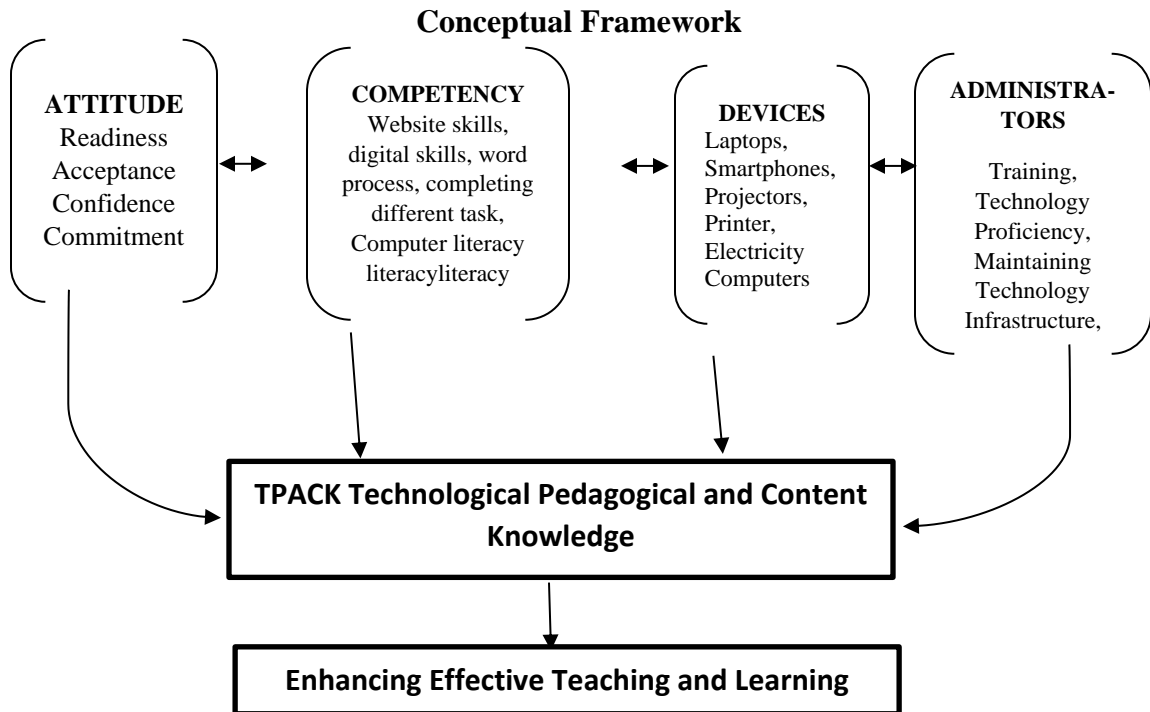


Figure I: Illustrates the conceptual framework for integrating technology into teaching and learning, employing attitude, competency, devices and administrator’s responsibilities are indicated. Several elements, such as preparation: learning new technologies, reviewing the content, and confidence in engaging participation for students to be connected and not isolated. commitment to recognize the charges utility, preparing technology backups trust in the changes potential to succeed and acceptability, all affect how well a change like digital technology is received. Training and continual practice in digital skills, word processing, online abilities for carrying out various tasks, and computer literacy are ways to develop competence. Laptops, a projector, cellphones, printers, Android phones, and electricity are some examples of devices Administrators now play such a crucial role in post-training support to teachers, they have no choice but to be technology vibrant. They are expected to provide an example for their teachers through training, retention, and upkeeping of their technology infrastructures and technological practices. The combination of attitude, competency, technology and administrative duties results in TPACK which will justify the final goal of improving teaching to both teachers and students.

Conclusion

For teachers to perform efficiently and effectively in future virtual classroom teaching and assist young minds to develop the capacity to leverage a sustainable future, it is urgently necessary to enhance their digital abilities. Based on the foregoing, the researchers draw the conclusion that information and data literacy, computer media literacy, digital content

creation and programming knowledge of data, security, problem-solving and critical thinking skills and information data literacy can all be used to access a teacher's level of digital competency. To enhance learning and teaching, teachers must be proficient in computer systems, websites, and tools, they are to serve as role models for students regarding how to use technology in a responsible manner, as well as effectively impart knowledge and technological skills to students

Suggestions

Based on the scholars' views as reviewed in this study, the followings are some of the recommendations proffered:

1. For teachers to stay current in digital technology and be relevant in the constantly evolving virtual classroom environment, they should be encouraged to pursue additional training that could further improve their digital competency in information and data literacy, computer media literacy, digital content creation and programming, data security knowledge, problem-solving and critical thinking skills. Training should be planned and accommodating to all teachers to participate
2. Teachers must constantly demonstrate their ability to motivate students and stimulate learning, be proficient with computer systems, websites, and tools, set an example for the proper use of technology in the classroom and encourage students' active participation while imparting knowledge and skills to them.
3. Governments need to find a means of lowering the cost of internet connectivity to make it accessible so that teachers can assist students to prepare for a brighter future. They should set up infrastructures in schools to make it easier for teachers to use digital tools during instructions and for students to learn how to use it to explore and become lifelong learners. Government should provide incentives for teachers to access professional development and organized training opportunities.
4. The educational technology curriculum has to be overhauled to integrate the real-world applications of technology for the present and future.

References

- Anekwe, U. (2017). *Impact of virtual classroom learning on students of Nigeria Federal and State Universities*. European Journal of Research and Reflection in Educational Sciences, 5 (3) 43
- Catasus, M. G.; Romeu, T. J & Colas, F. (2020). *Basic digital competencies for unemployed citizens: Conceptual framework and training model*. Cogent Education, 7(1) 1748469 <https://doi.org/10.1080/2331186X.2020.1748469>
- European Union (2018). *Digital competence framework for educators*. EU. Science Hub
- Hjukse., S.; Aagaar, T.; Bueie, A. A.; Moser, T. & K.S. Vika (2020). *Digitalization in teacher education: How professional digital competence is addressed in different subjects*. Acta Didactic Norden 14 (10, 27 sider. <https://doi.org/10.5617/adno.8023>
- Iheanyinchukwu., W. (2020). *Managing teachers digital competence for Quality Instructional delivery in secondary schools in Nigeria*. African Journal of Educational Research and Development (AJERD) 11 (20) 116-120

- Karunaweera, A. S. & L. K. Wah (2021). *Measuring digital competence: an explanatory study mapping digital competence profiles in Sri Lankan English language teachers*. Asia Pacific Journal of Educators and Education 36 (1), 93-112 <https://doi.org/10.21315/apjee>.
- Konig, J, Jager-Biela, D. J & Glutsch, N. (2020). *Adapting to online teaching during COVID_19 school closure: teacher education and teacher competence effects among early career teachers in Germany*. European Journal of Teacher Education, 43 (4), 608_622 <https://doi.org/10.1080/02619768.2120.1809650>.
- Liew, Y.P, Lim, L.& Tai, H.T (2021). *A study on students experience in virtual classroom during COVID-19*, Retrieved from <https://www.researchgate.net/publication/347245639>.
- MINECO (2021). *Plan Nacional de Competencias Digitales*. Retrieved from https://portal.mineco.gob.es/RecursoArticulo/mineco/ministerio/ficheros/210127_plan_nacional_de_competencias_digitales, Pdf
- Mishra, P. & M. J. Koehler (2006). *What is Technological Pedagogical Content Knowledge?* Contemporary issues in Technological and Teacher Education 9 (1) 60-70.
- Muharlisiani L. T, S. Bariroh, W.G, Mulawarman, &K. S. Abadi (2022). *The digitalization of teacher's competencies towards digital skills and development at Indonesia high schools and vocational schools*. Journal of Positive School Psychology, 6(5), 1569-1476.
- Omunakwe, A-O, F. (2020). *Perceived influence of teacher's quality on students' academic performance in senior secondary schools in Port-Harcourt Metropolis River-state Nigeria*. International Journal of Innovative Social and Science Education Research 8 (3) 146-161
- Pablos, G.; Matarranz.; V. B, Casado-Aranda, L.; & A. Otto (2020). *Teachers digital competencies in higher education: A systematic literature review*. International Journal of Educational Technology in Higher Education 9(8). 1-16
- Rani, G. Gandhi, A.(2020). *Digital competence of teachers: An urgent for future classroom*. International Journal of Multidisciplinary Education Research 5 (16) 2.286.
- Raviv, H, S (2020). *Understanding the role of digital technology in education: A review of sustainable operations and computer 3* <https://doi.org/10.1016/j.susoc.2020>.
- Suwartono. T, Aniuranti A (2019). *Digital teachers tools I 21st century EFL Classroom : Are our teachers ready?* Journal of English Literature and Teaching.; <https://doi.org/32528/elitev3.2>. 1916

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) IN TEACHING AND LEARNING: A SOUTH AFRICAN CONTEXT

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Abstract

The study explored the role of Information and Communication Technology (ICT) in teaching and learning in schools in South Africa in relation to how best ICTs can be used to enhance the teaching and learning process in schools. Underpinning the study was the interpretive paradigm, and this qualitative study employed a phenomenological design as a data-collection strategy. Four schools were selected and semi-structured interviews and document reviews were used for data collection; two teachers in each of the four sampled schools were interviewed. The interviews were recorded, transcribed, and coded; data were analysed based on themes. The findings indicated that ICT usage in South African schools improves learners' academic performance and was regarded as an innovative strategy that teachers used to redress teaching disparities the country has suffered in the past many years. The findings further showed that teachers made use of different media platforms such as WhatsApp, downloaded video clips, PowerPoint presentations, and educational games to enhance teaching and learning. However, the findings also showed that financial instability in homes and teachers' lack of ICT skills inhibit the use of ICT in schools and exacerbate the 'digital aperture' where learners from such homes could not gain from the benefits of ICT use in schools. Thus, the study recommends that the government, the department of basic education, school governing bodies, and the school principals ensure the provision of ICT tools and infrastructure, even if it would require outsourcing financial assistance from the neighbouring countries.

Keywords: Information and communication technology, ICT usage, learning, teaching

Introduction and background

There is a growing trend in Information and Communication Technology (ICT) usage in teaching and learning in South African schools. ICT is a new innovative tool that is used nationally and internationally to enhance teaching and learning processes in schools. It brought about drastic changes in the way teaching and learning takes place and also influenced how people live and work (Kehinde, 2021). Udoeye and Egbule (2019) see ICT as the parasol/umbrella name for the new innovative technologies that drive and propel education and the world to greater heights. Osakwe (2012) and Shittu (2013) describe ICT as the systems of progressing technologies that facilitate information assemblage and processing, transfer, usage, storage, retrieval, and sharing. Similarly, Oluwarobi (in Kehinde, 2021) defines ICT as 'electronic-based technology' that is used to process, store and retrieve information, and also allows access to new knowledge. Essentially ICT consists of a wide range of technologies like telephone, computer, internet and worldwide website [www], fax, word processing, application, magnetic link, character recognition

checks, spreadsheets, educational software packages, CD Rom based, Rom based resources, online information sources, PowerPoint, television (TV), overhead projectors (OHP), camera, radio, videotape, audio cassette, and many others (Adeyemi & Olayele, 2010). ICT makes information collection, processing, dissemination, and storage very fast, easy, and efficient, and thus for all, it holds a dynamic role in the education, economic, political, and societal lives, (Kaizer, 2019). This study sees ICT tools as catalysts for the education system to meet learners' needs and more importantly, to prepare citizens that can fit in this ever-changing world. Thus, in realising the fruits of ICT integration in education, it is a necessity that it is integrated into daily teaching and learning in schools.

Like many other countries, South Africa (SA) deemed technology as one of the building blocks of modern society and vested its trust in ICT in remedying the state of education in the country. Therefore, there is a need to fully understand the role ICTs play in teaching and learning (education). Also, it is necessary to explore how ICTs can be used to enhance teaching and learning. This is because, in one to two decades, ICT has been a known phenomenon in the education system as a whole. Yet, South African schools are still struggling on using it. Hence, even in the performance rate, there has not been a remarkable change (Mlotshwa, 2019). Padayachee (2017) agrees that there is little research measuring whether using ICT in teaching and learning addresses challenges facing the education sector. And Crossdele (2019) and Tony et al. (2018) opine that the effect of using ICT on learners' academic achievement remains difficult to measure because even in full-ICT schools, ICTs usage remains a challenge in the teaching and learning process. Therefore, the aforementioned need to be researched hence, the study aims to find out what is the role of ICT in teaching and learning and how can ICTs be used to improve the teaching and learning process in schools.

Despite these shortfalls, there is plethora of literature that proves that ICTs usage in the teaching-learning process yields positive results (Adu, 2014; Adu & Galloway, 2015; Padayachee, 2017; Ojo & Adu, 2018) and it advances the standards in the education sector, allowing learners/students to able to compete at a global level. Chisadza et al. (2021) argue, however, that in schools, teachers are slowly adapting to it due to various reasons as mentioned above. As a result, one may have uncertainties about ICT usage in schools. Thus, a topic for discussion should revolve around understanding the role of ICT and the 'know-how' on using ICT in enhancing teaching-learning in schools. The realities of this new age compel everybody to be ICT-able (Adu, 2014) in meeting the demands of this ever-changing world. In addressing the concerns raised above, this study attempts to find out the role of ICT usage in teaching and learning, and also explores how can ICT be used to enhance teaching and learning in schools in South Africa.

The purpose of the paper

This paper aims to explore the role of ICT in teaching and learning in schools, in the South African context. The study intends to:

- discuss ICT's role in teaching and learning in schools; and
- examine how best can ICTs be used to enhance the teaching and learning process in schools.

Research questions

- What is the role of ICT in teaching and learning?
- How can ICT be used to enhance the teaching and learning process?

Literature review

ICT's role in the teaching and learning

Educationists, government and policymakers admit that incorporating ICT in education can and/or assist learners/students to be able to compete in the economy at a global level by being part of skilled personnel (Garg, 2021). The world we live in is ICT driven and is determined by our need for more knowledge and knowledge establishment. Therefore, at present and in the future, the prevalence of ICT is a direct result of society's continuous aspiration to advance its way of life and that is inclusive of individual's life and education. Munje and Jita (2020) agree that ICT contributes to improving learners' abilities to learn across all disciplines and fields. Towards the attainment of these advantages, South Africa's ICT mission is included in the country's National Development Plan 2030 [NDP] (Mjwara, 2017). In response, the DoE e-learning White paper (2003) was drafted to transform teaching and learning through ICT at all levels in schools in South Africa to enhance effective teaching and learning in schools.

Garg (2021) expounds that the role of ICT in education is to enhance effective learning, by increasing the learning dimension that was not been previously available in traditional teaching pedagogies. Rafaei (2015) asserts that ICT is a momentous motivational factor in learners' learning, and can support learners' engagement with collaborative learning and thus deepening their knowledge. In the views of Maromo (2020), ICT brings about inclusion in education. His study proved that with the use of ICT, learners in the classroom including those with special needs learn from the curriculum material without being disadvantaged and excluded. To survive in the 21st century, learners need to have high-order thinking skills (such as planning, evaluating and monitoring, etc.) with which they will be able to make sound contributions, make informed decisions, and be able to maximally express themselves. These skills can be encouraged through the use of ICTs in teaching and learning (Garg, 2021).

Hamed (2021) maintains that ICT brings about a collaboration among learners where they can discuss and talk about the task given at a particular time. In this instance, it opens up avenues for communication and therefore, enhances understanding. Subsequently, it increases learners' eagerness to learn as they are fascinated with technology and thus remain motivated. In the views of Adu and Galloway (2015) and Garg (2021), ICT usage in teaching and learning allows for knowledge retention and improves engagement. Learners remain absorbed and more engaged when ICT is integrated into lessons. As a result, this increases engagement, and Ojo and Adu (2018) purport that learners can efficiently and effectively recall knowledge. Sing (2016) expounds that learners learn in different ways, (at different speeds, and different teaching approaches) and technology provides opportunities to address/meet learners' diverse educational needs. Adu and Zondo's (2022) study on teachers' experiences in the teaching of economics in the Covid-19 era revealed that ICT was among the mitigating strategies that teachers used to teach learners during COVID-19. Similarly, Chisadza et al. (2021) reveal that when the Coronavirus arose, there was a transition from traditional contact learning to online

learning. This proves that ICT was vital to ensure that the teaching-learning process took place. Nevertheless, there were challenges noted thereof. The discussion concludes that incorporating digital technologies/ICT is an important aspect toward the completion of prescribed curricula in schools. Furthermore, it permeates throughout all industries in the economy locally and at a global level and thus meets societal demands.

How can ICT be used to enhance the teaching and learning process?

Alkhaddam (2022) maintains that for the effective use of ICTs in educational institutions, both teachers' and learners' motivation towards ICT needs to be developed to ensure an encouraging school setting where effective teaching and learning can occur. Oden (2018) maintains that teachers must ensure the development of learners' technical skills for using ICT devices, for example how to use a mouse and keyboard, and interactive whiteboards, to perform functional activities like to suggesting tasks that cover, improve and support the existing curriculum. This is to ensure that learners/teachers can explore new areas of teaching and learning. In this instance, ICT would be an educational tool for teaching content, fostering cooperation, promoting critical thinking, and acting as a tool for nurturing the development of a new curriculum adjusted to meet the demands of the 21st century, where the learners can transform their way of learning. Corroborating this view Ghafar et al. (2011) sustains that the “use of ICT in schools has proved to be effective in the learning process and has been found to have eased and accelerated the speed at which the learners and/or students grasp the basic concepts in schools (Ghafar, et al, 2011, p. 210).

Alkhaddam (2022) suggests that ICTs must be used in the classroom to work on information processing, authentic communication, and on the learner's independence to construct new knowledge in the learning process. In that way, ICT's role will be to help learners to be able to evaluate, arrange and decide on the information that comes to them. de Aldama and Pozo (2016) maintain that teachers are to bring learners to real contact on ICTs through electronic mail, ‘chats’, ‘blogs’, WhatsApp chat groups, zoom classes, or spaces wiki, etc. as this will ensure exposure to the ‘know how’ of ICTs usage in enhancing their learning and gaining experience thereof. These authors point to the fact that working with real documents will allow learners to be user-friendly and associate ICT gadgets with their educational activities and school work, and that will accelerate passion and interest and drives them toward the completion of tasks and assignments given. It is generally believed that ICT can empower both teachers and learners. It is in this regard that Oden (2018) proclaims that ICTs promote change to education in the 21st century as it not only transforms teaching but also the learning processes. Hamed (2021) emphasises the methodology, “the *how, the what, and the why*”, is where teachers' good educational practice is shown. This should be shown in the way teachers integrate the operational aspects directly related to learning. This includes giving learners learning and methodological guidelines; teaching methods and learning principles; teaching activities encouraging collaborative work; ICT resources, and integrated internet-based materials. In so doing, teachers are giving clear guidelines for the attainment of the lesson objectives identified before the commencement of the lesson. Subsequently, these (ICTs) can result in quality lessons as technological tools have the potential to accelerate learners' motivation towards learning, allowing them to easily access information sources, and support active

in-class and out-class learning environments. Moreso, Padayachee (2017) and Mlotshwa (2019) posit that ICT succour learners in dealing with their learning difficulties in schools and also lessen teachers' teaching responsibility thus allowing more time for teachers to offer support to the learners.

Research Design and Methods

This qualitative study reports on the role of ICT in teaching and learning and on how can ICT be used to enhance the teaching and learning process. The study was guided by the interpretive paradigm, and it utilised a phenomenological design as a data-collection strategy. According to Alase (2017), a phenomenological design allows researchers an opportunity to get under the skin and understand the participants' lived experiences on the phenomenon (ICT) being studied. The phenomenological design was, therefore, suitable as it allowed the researchers to select a small size sample (van de Ven, 2016) and also assisted in understanding if the participants were aware of ICT's role in teaching and learning and also what were their understandings of the "how" part on ICT usage in teaching and learning in schools in South Africa.

The study focused on four secondary schools within the Pinetown district in Durban, South Africa. The schools were situated in societies with low socio-economic status. The researchers used purposive sampling to sample four public secondary schools that were known to have ICT tools and use ICTs in their teaching. Using semi-structured interviews on ICT-related matters and document reviews (i.e. curriculum and assessment policy statement [CAPS] document, lesson plans, notes, and mark sheets) data were gathered from eight teachers in the four sampled schools. The departmental heads assisted in the sampling process; grade 12 teachers were purposively excluded from the sample because the study was conducted during the examination period. The sample thus consisted of a total of eight teachers: two teachers in each sampled school.. The use of two data collection tools ensured the triangulation of data Vagle (2018). Participants' consent was sought before data was collected, and they have assured the confidentiality and privacy and their information. For the presentation of data participating schools were coded School W, School X, School Y, and School Z, and participating teachers were coded Teacher 1, and Teacher 2, respectively.

Results

The results were presented and discussed under the following themes:

- ICT role in teaching and learning
- ICT usage in the enhancement of the teaching and learning process

ICT Role in Teaching and Learning

The participants were asked, "what is the role of ICT in teaching and learning?" Their responses revealed that ICT holds a vital scrumptious role in teaching and learning. In essence, from their views, ICT integration seemed to be renowned and seen, in the sense that schools in South Africa should no longer purchase/buy printed textbooks that will be shared amongst the learners. In this instance, learners can download e-books which were believed to be handy, and easily accessible, at the same time the school will be saving money for other things. As one participant stated that "*ICT allows our learners to go online*

and Google information, in that way it assists in acquiring more information and increases the scope for curriculum coverage”, (school Z- teacher 1). From this participant’s view, ICT allows teachers to cover a mouthful of work easily because learners are exposed to a variety of resources. Also, learners can download video clips, digital notes, and voice notes using ICT gadgets which are easily accessible and they study anywhere, moreover, ICTs save time. Additionally, learners can connect with distant people for help and information.

At school X, teacher 2 acknowledging the role of ICT in teaching and learning declared:

As a researcher and a teacher ... [...], ICT has changed education completely. I had an opportunity to teach in different schools where in one school I had to teach using the traditional teaching method of using chalk and board. The school was from deep rural areas as there was no electricity. Observing this kind of teaching [...], I noticed that learners get bored in the classroom, and some will sleep because they were supposed to listen to me, process the content taught, and try to make connections, and some [...] not following the lesson because the topic and/or content taught is too abstract for them to comprehend. And thus resort to sleeping during the lesson. [...]. Learners were solely dependent on me for information and knowledge as they were not exposed to technological gadgets. As a result, those who did not grasp the concept remained behind and ended up failing. However, if our school was situated in areas where there was electricity and network connection learners would have been able to make use of ICT tools and access information on their own, because when using ICTs they will never go wrong but will improve academically in terms of their performance. [School X-teacher 2]

The participant emphasised that ICT plays an important role in teaching and learning, and learners get bored and feel excluded when teachers rely only on traditional teaching and learning approaches. Expounding that, with ICT usage learners improves academically. On a similar view, another participant echoed:

Prior our school did not allow the learners to bring their phones to school [...], I negotiated on their behalf. Thereafter, they were allowed to bring them but only for educational purposes. More often, I will ask them to bring their phone to school, [...], we downloaded different platforms for teaching and learning, and they were so excited to know that they can learn on their own and do research on the math subject. Also, I introduced them to zoom (“a cloud-based videoconferencing service where virtually you can meet other people”), they were so excited to know that they can learn using their phones while they are sitting at home. Their performance and participation changed, they were all looking forward to learning and challenging themselves. Therefore, ICT plays an important in enhancing their learning in any subject and improves the results at the end of the year. [School W-teacher 1]

The participant brings to light that some schools resist the digital world that we live in. Despite this fact, the teacher explains further that ICTs simplify their teaching task and lessen their teaching role. Above that, learners can learn on their own, research, and also can compete as they challenge each other. ICT brings about innovations and creativity as learners can access information on different information sites. Far more, the teacher can teach learners even after hours. In totality, this comment emphasises the important role ICT has in teaching and learning.

Touching on the Corona Virus Disease (COVID-19) pandemic another participant brought light to the fact that ICT has been proven and reported to be a very important tool in teaching in learning during the lockdown.

During the lockdown times, I was able to download educational games and videos on YouTube (“a global online video sharing and social media platform or website”) for my children and also for my learners. These videos assist a lot and afforded many young people ‘school away from school’ setting during the hard times. Even though ICTs cannot replace the teacher, it facilitates the teaching and learning process. [...] to my surprise, I noticed that my children at home were thrilled by such an experience, as videos made their learning easier and more fun at the same time. Using technology seemed interesting to my children and my learners. As for [...] my learners I was getting their responses more often, than when compared to normal schooling. Even their mindset changed as they now appeared to understand that, not always ICT gadgets be used for games and other things but also can be used for educational activities and enables them to understand even challenging topics and concepts. (School Y-teacher 2)

The comment summarises the realisation of the importance and the role ICT played during COVID-19. It was through ICT tools [downloaded videos] that teachers tried to manage that [learners] were not completely left behind. This was also applicable to the teachers who tested positive for COVID-19. They were able to communicate and send activities and in some cases teach using media platforms such as WhatsApp.

ICT Usage in the Enhancement of the Teaching and Learning Process

Two participants were asked: “how can ICT be used to enhance the teaching and learning process”? Their responses revealed that ICT is a responsive tool that was meant to enhance teaching and learning whilst redressing the imbalance and hierarchical teaching and learning approaches that the country has suffered. Their views continue to expose that ICT is a good tool (or theoretically good) in enhancing teaching and learning. Even though, in practicality integrating ICTs is a very erratic occurrence, and this stems from a range of factors including the unavailability of ICT tools and resources. For example, one participant stated:

ICT usage is a very good transformational initiative that is meant to transform education and redress educational inequalities of the past. In other words, ICT brought about change that is meant to better the

education system and assist our learners to learn better, and enables them to face their fears and/or barriers in learning. Tentatively, it can be said to be a “mobile teacher” or rather a second teacher to the learners. As learners can do a Google search for information to assist them in doing school work and assignments. Even though, empirically it is difficult to use it in our daily teaching because there are so many hindrances. For example, be it [...] lack of ICT tools in schools, teacher's lack of ICT skills, financial instability for both teachers and learners, etc. [School Z-teacher 2]

On a similar view, another teacher attested:

I believe the proper training of teachers first will enhance teaching and learning because teachers are also lacking the knowledge or the ‘know-how’ of using technology. Some teachers cannot even use laptops and overhead projectors to use PowerPoint presentations in class. And thus, understanding how these young learners are exposed to technology will help teachers to use the technology in their classes because their understanding of it better will help enhance the teaching and learning in a classroom rather than using old ways of teaching. Therefore, teacher training will help to improve the performance of learners in the class, and they will focus because the lesson will interesting for them.

These participants emphasise that for a effective usage and integration of ICT in teaching and learning, teachers’ enhanced ICT skills are imperative. Furthermore, these teachers value that the implementation of ICT is a state whereby learners use ICTs to learn, and they viewed ICT as a medium and/or Center of learning. In explanation, this is where teachers use overhead projectors to project their lessons and use laptops to do PowerPoint presentations in their classrooms. These participants on the other hand exposed that ICT implementations and usage are only good on paper but difficult to implement and put into practice. They put forth that the realisation of such is embedded in the proper ICT training for the teachers.

At school X –teacher 1 stated that:

“ICT usage in the enhancement of the teaching and learning process is a dazzling invention that when used properly can produce better quality results for learners and for teachers it will minimise their work stress and saves time [...] as they will be ‘working smart and not hard’ and have the passion for teaching a shining star. In my case, when teaching, I use ICT technologies such as cell phones, smart boards, and more especially I Google information myself and make copies for my learners, particularly when teaching my grade elevens graphs in Economics as this helps in making sure that the graphs are accurately drawn. However, we acknowledge the existing gap between the department’s ICT vision and the reality that our parents and schools fail to provide our learners with new technologies. Regardless of this, teachers are to learn to be versatile and dynamic enough about how they

can use technology in their teaching pedagogies to better learning in classrooms, especially for visual learners. At the most, they should be adaptable, in the sense that they can be able to adapt and improvise, for example, if a lesson planned using ICT gadgets fails because maybe because of an internet connection or any technical errors, they can be able to continue with lesson [...] since in our schools we sometimes encounter many challenges with regards to ICT usage. [School X-teacher1]

From this comment, it was shown that ICT enhances the quality teaching and learning process. This participant revealed that he/she uses a variety of ICT tools such as cell phones and smart boards when teaching, and further agreed that this minimises the teaching responsibility because it is not time-consuming. To facilitate teaching and learning, the participant explained that h/she makes copies to distribute amongst the learners especially when teaching graphs. The gap between policy and implementation remains a challenge due to parents' understanding of the value of ICT in teaching and learning and also the school's readiness for mainstreaming ICTs and providing ICT tools for learners in schools was questionable and thus pleading with teachers to be able to improvise should the planned ICT lesson becomes a failure.

Discussion

The findings of the study showed that ICT holds a vital role in teaching and learning in South African schools. It was reported to enhance the teaching and learning process and was regarded as an innovative strategy that is used to redress teaching imbalances the country has endured in the past many years when integrated appropriately. Unanimously, participants agreed that ICT improves learners' academic well-being, and allows the learners to learn on their terms as they can access teaching materials anywhere and everywhere. Whereby they did not grasp the concept taught at schools, they can be able to go to media platforms such as WhatsApp, download video clips, and educational games, or even ask the teacher for clarity, etc. ICTs ensure that '*all learners*' get the information they deserve at their own pace and at any time. The document reviewed (mathematics and Economics lesson plans) showed that learners were asked to do online research recapping what has been learned in the classroom.

Corroborating these findings are Munje and Jita (2020) who expound that ICT contributes to improving learners' capacities to learn across all disciplines and fields. This is responsive to the country's NDP 2030 vision which aimed at transforming education at all school levels through ICT usage in all South African schools (Mjwara, 2019; Hamed, 2021). Similarly, Maromo (2021) argue in support when saying that it brings about inclusion in education, because all learners get increased learning opportunities, furthermore, attested that the use of ICT in teaching and learning (and/or in the classroom) affords learners with special needs to learn from the curriculum material without being disadvantaged and excluded. Learners' notes exercise books were reviewed, and it was found that there were attached simplified notes aimed at assisting learners on graph construction in Economics. And after learners familiarised themselves with these notes, they aced the activity that followed. This proves that ICT holds the role of allowing learners to face and deal with their learning difficulties and meet their educational necessities. Emerging from the

findings was the fact that during the COVID-19 era, ICT played an important role as teachers used it to ensure that teaching continued (as per the annual teaching plan) and learners did not miss too much of their prescribed curriculum. The results are consistent with those of Adu & Zondo (2022), Garg (2021), and Ojo & Adu (2018) which regarded ICT usage in schools as an extenuating strategy that teachers used to teach learners during the COVID-19 pandemic and lockdown. The study also supports the findings of Chisadza et al. (2021) that when ICT is used in teaching and learning, it yields to increased learner participation and engagement, and thus this means that learners can ‘learn resourcefully and successfully recall knowledge’.

In relation to research question two, the participants’ responses show that ICT usage was meant to enhance teaching and learning in schools, and also to act as a medium of democratising education to ensure that education is equal for all learners or rather to ensure that the education imbalances that the country has experienced were eradicated in the system. These findings were supported by those of Adu and Zondo (2022) who pronounce that in this new digital age ICTs usage promotes change in education because it not only brings about transformation but also the learning process. They however negate those of Hamed (2021), which considers ICT usage in teaching as the “digital divide”. He believed that in most cases ICTs involve financial cost, which due to economic background most learners cannot afford to buy. To this end, this compromises the effective use of ICT gadgets in schools. Hamed (2021, p. 15) declared that “there are many poor families and consequently many students cannot afford the high cost of ICT in education”. In this instance, this scholar foresees that the gap between countries (or schools) and ICT resource availability in schools could result in many problems in the realisation of ICT usage in schools in South Africa and many other countries. One participant brought up that learners were not allowed to bring cell phones into school. Alkhaddam (2022) turn to challenge this finding, suggesting that ‘ICTs must be used in the classroom to work on information processing, authentic communication, and on the learner's independence to construct new knowledge in the learning process’. On the other hand, the findings of Hamed (2021) exposed that bringing ICTs into educational settings and schools could be a disruption to both teachers and learners, as a result, the content to learn and comprehend will be compromised. Despite this truth, the study revealed that regardless of these negative points, in allowing South Africa to move with the times, we have to ensure that ICTs are implemented and used in schools. The study findings and the literature (Mlotshwa, 2019 and Alkhaddam, 2021) have proved that learners/students and teachers have an exceptional desire for technological devices such as cellphones/or smartphones, laptops, and tablets for example, and thus spend the utmost of their time using it, will enhance their understanding of many educational things and that will mean the improved academic success. In support of this finding, it was worth noting that the mark sheets and mark schedule showed an increased learner academic achievement and as teachers indicated. The findings revealed further that in theory and paper, ICT is a glorified concept yet difficult and has hindrances to use and implement. It emanated from the findings that teachers' lack of ICT skills and passion for ICT impede the efficient use of ICTs in the South African schools

Conclusion

The study explored the role of ICT in teaching and learning in schools and examined how ICTs can be used to enhance the teaching and learning process in schools in South Africa.

The findings of the study indicated the vital role ICT has in improving teaching and learning in schools in South Africa. The findings showed that in the selected schools, the participants used a variety of ICT tools when teaching, and these tools have been found to minimise and lower the teacher's teaching responsibility as these tools save time. The prevalent circumstances in these schools is that ICT being proven to be the best tool and strategy to facilitate teaching and learning, consequently, resulting in learners' improved academic achievement, furthermore, learners learn independency as they can be able to face and deal with their academic fears and as a result can address their barriers to learning. Additionally, it emerged that ICT usage brings about inclusion in education as ICT usage enables teachers in teaching learners of all abilities (and those with additional learning needs) and backgrounds. The study recognised fragmentation between ICT policy and its implementation as ICT usage was found to be a challenge due to (some) parents, teachers, and learners' failure to understand the value of ICT in teaching and learning. Some of the researched schools (and/or) teachers were found to be not ready to mainstream ICTs and provide ICT tools for learners in schools and to be lacking ICT skills. The findings imply that there is still a lot to be done in ensuring that ICT is used and is fruitful in enhancing teaching and learning in schools. This implication suggests that the DBE should track and revamp and monitor ICT usage in schools to ascertain and address challenges relating to ICT usage and availability in schools.

Recommendations

From the findings, ICT usage was revealed as a reactive tool that was intended to enhance teaching and learning whilst rectifying the imbalance and hierarchical teaching approaches that the country has suffered, yet it was found to enforce the "digital divide" because learners from poor families cannot afford ICTs. The study, therefore, recommends that the government and the DBE ensure that all the required resources are provided and closely monitored to ensure that all learners are included and resources are being utilised. The schools are allocated funds and therefore, the principals and the school governing body of a school should set aside money to buy ICT-related infrastructures to ensure that teachers never run out of these infrastructures and resources. Neighbouring countries could be of assistance, and thus the government should ask for help whereby these countries can invest and donate to ICT infrastructure. Furthermore, the DBE every quarter should capacitate and train teachers to improve their ICT skills additionally, ICT experts can be deployed and stationed in schools to assist teachers with digital technologies for improved and quality education.

References

- Adeyemi, T.O. and Olaleye, F.O. (2010). Information communication and Technology (ICT) for the effective management of the secondary school for sustainable development in Ekiti state, Nigeria *American-Eurasian Journal of Science Research* 5 (2), 106-113.
- Adu, E. O., & Galloway, G. (2015). Information and Communication Technologies (ICT) and teacher education preparation in South Africa: Implications for 21st century classroom-based practice. *Journal of Communication*, 6(2), 242-247.
- Adu, E.O. (2014). Information and Communication Technology (ICT): The implications for Sustainable Development in Nigeria. In: Proceedings of World Conference on

Educational Multimedia, Hypermedia and Telecommunications 2014, *Tampere Finland*, pp. 35-43.

- Adu, E. O., & Zondo, S. S. (2022). Chronicling teacher's experiences in the teaching of economics in the Covid-19 era. *International Journal of Research in Business and Social Science* (2147-4478), 11(8), 290-297.
- Alase, A. (2017). The interpretative phenomenological analysis (IPA): A guide to a good qualitative research approach. *Australian International Academic*, 5(2), 15–23.
- Arthur, F & Kaku, D.W. (2020). The Use of Technology in the Teaching of Economics: Perspectives of Economics Students. *Global Scientific Journal*, 8(8), 2906-2919. www.globalscientificjournal.com
- Caulfield, J. (2022). How do thematic analysis/step-by-step guide & examples? Retrieved October 13, 2022, from <https://www.scribbr.com/methodology/the-analysis/>
- Chisadza, C., Clance, M., Mthembu, T., Nicholls, N. & Yitbarek, E. (2021). Online and Face-to-face Learning: Evidence from Students' Performance during the COVID-19 Pandemic. *African Development Review, Special Issue Article*. <https://doi.org/10.1111/1467-8268.12520>.
- Crossdale, J. O., Mbaegbu, R. E., & Nwosu, B. O. (2019). Utilization of information and communication technology (ICT) in teaching and learning of business subjects in junior secondary schools in Delta, State. *Nigerian Journal of Business Education (NIGJBED)*, 6(1), 246-255.
- De Aldama, C., & Pozo, J. I. (2016). How are ICT used in the classroom? A study of teachers' beliefs and uses. *Electronic Journal of Research in Educational Psychology*, 14(2), 253-286.
- Department of Education (DoE). (2003). White Paper on e-Education. Transforming learning and teaching through information and communication technologies. Department of Education. https://www.gov.za/sites/default/files/gcis_document/201409/eeducation1.pdf
- Department of Education [DoE], (2003). National Curriculum and Assessment Policy Statement (CAPS): Senior Phase Grades 7-9 Economic and Management Sciences. Pretoria.
- Garg, R. (2021). Role of ICT in Teaching and Learning. <https://www.researchgate.net/publication/349924124>
- Ghafar, A. S., Marwangi, M. M. S., Faisal, N., Yusof, S. K. S., Rashid, R. A., Saparudin, F. A., & Katiran, N. (2011, November). Challenges and practical implementation of self-organizing networks in LTE/LTE-Advanced systems. In *ICIMU 2011: Proceedings of the 5th international Conference on Information Technology & Multimedia* (pp. 1-5). IEEE.
- Hamed, B. (2021). The Role of ICT in Teaching and Learning. *Journal of Education, Linguistics and Literature*, 1(2), 11-16. ISSN: 2583-102X (online)
- Kaushik, V. & Walsh, C. (2019). Pragmatism as a research paradigm and its implications for social work research. *Social Sciences*, 8, 1–17.
- Kehinde, M. O. (2021). *Availability, Utilization and Maintenance of ICT Facilities for Teaching and Learning Business Subjects in Secondary Schools* (Doctoral dissertation, Kwara State University (Nigeria)).

- Maromo, J. (2020). Coronavirus in SA: WHO boss praises South Africa's response to Covid-19 pandemic. IOL.
- Mjwara, P. (2017, June 2). Shaping the future of SA's economic growth through science, technology and innovation. Mail & Guardian. Retrieved from <https://mg.co.za/article/2017-06-02-00-shaping-the-future-of-sas-economicgrowth-through-science-technology-and-innovation>.
- Mlotshwa, H.F. (2019). *Exploring ICT Pedagogic Integration of Economics Teachers in Two Johannesburg Schools*. [Unpublished M. Ed Thesis]. University of the Witwatersrand
- Munje, P. N., & Jita, T. (2020). The impact of the lack of ICT resources on teaching and learning in selected South African primary schools. *International Journal of Learning, Teaching and Educational Research*, 19(7), 263-279. <https://doi.org/10.26803/ijlter.19.7.1>
- Nji, I. A., & Idika, E.O. (2018). Utilization of ICT in Teaching and Learning of Economics in Secondary Schools in NSUKKA Education Zone. *International Journal of Economics Education Research*, 1(1), 43-57
- Ojo, O. A., & Adu, E.O. (2018). The Effectiveness of Information and Communication Technologies (ICTs) in Teaching and Learning in High Schools in Eastern Cape Province. *South African Journal of Education*, 38(2), 1-11
- Okoli, B. E. (2013). Ensuring quality in the teaching of accounting in schools. *Nigerian Journal of Business Education*, 1(2), 99-105
- Okoye, A. C., Nwannah, L. N., & Udegbunam, E. O. (2020). Issues in the use of ICT in business education in tertiary institutions in Anambra State. *Nigerian Journal of Business Education (NIGJBED)*, 7(2), 424-437.
- Osakwe, R. (2012). Problems and Prospects of Using Information and Communication Technology for Record Keeping in Tertiary Institutions in Nigeria. *Journal of Education and Practice*.
- Padayachee, K. (2017). A snapshot survey of ICT integration in South African schools. *South African Computer Journal*, 29(2), 36-65. <http://dx.doi.org/10.18489/sacj.v29i2.463>
- Patton, M. Q. (2005). *Qualitative research*. Hoboken, NJ: John Wiley.
- Rafei, C. (2015). Effectiveness of ICT on teaching and learning case study on Basic Technology. Retrieved on 31st August 2017 from nairaproject.com/inlprojects/1010:htm
- Shittu, N.A. & Shittu, A.J.K. (2013). ICT impact assessment model: An Extension of CIPP and the Kirkpatrick Models. *International HETL Review* 3(12). Retrieved on 20th August 2017 from <http://www.researchgatnet>links>ICT>.
- Sibisi, K. P. (2019). *Exploring Pedagogical Practices of Grade Seven Economic Management Sciences Teachers in Teaching Financial Literacy: A Case Study of Three Clermont Township Schools*. [Unpublished MEd Thesis]. University of KwaZulu Natal
- Sing, H. (2016). Examining Teachers' Beliefs about ICT in Education: Implications of a Teacher Preparation Programme. *Teacher Development*, 11(2), 149 – 173
- Tella, A., & Adu, E.O. (2019). Information Communication Technology (ICT) and Curriculum Development: the challenges for education for sustainable development. *Indian Journal of Science and Technology*, 2 (3), 55-59

- Tony, O.A., Ashiru, O.B., Kehinde, J., & Oluwatoyi, A. (2018). Imperatives of Information and Communication Technology on Potencies and Skill Gaps of Educators and Undergraduates of Higher Education Institutions in Nigeria. *International Journal of Information, Business and Management*, 10 (1), 49-57
- Udoye, N.R. Egbule, C.N. (2019). Business Education students Utilization of Social Networking Technologies for Research in Tertiary Institutions in Delta State. *Nigerian Journal of Business Education*, 6(1), 229-234. <http://www.nigjbed.com.ng>.
- Vagle, M. D. (2018). *Crafting phenomenological research* (2nd ed.). Routledge.
- van de Ven, A. (2016). Grounding the research phenomenon. *Journal of Change Management*, 16(4), 265–270.
- Yin, R. K. (2018). *Case study research: Design and methods* (4th ed.). Sage

DIGITAL TECHNOLOGY AND PUBLIC SECONDARY SCHOOL TEACHER WORK PERFORMANCE DURING THE COVID-19 IN IBADAN METROPOLIS, OYO STATE, NIGERIA

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Abstract

Digital education refers to the creative use of digital tools and technologies in learning and teaching. This course will teach teachers how to effectively use digital resources to enhance the learning environment in the classroom. The study evaluates the teachers' digital literacy in light of the COVID-19 pandemic and how it relates to their work performance in public secondary schools in Ibadan metropolis, Oyo State, Nigeria. A descriptive survey research design was adopted in this study. Four research questions were raised and answered, two hypotheses were formulated and tested. A multistage sampling procedure using purposive and simple random sampling techniques to select 792 out of 2510 teachers from the selected public secondary schools in Ibadan metropolis, Oyo State. A self-structured questionnaire titled Teachers Questionnaire was with a reliability Cronbach alpha of 0.794. Descriptive Statistics was used for the research questions while inferential statistics was used for the hypotheses at a 0.05 level of significance. The result showed there was a positive relationship ($r=0.853$) between digital teachers and public secondary school teachers work performance during the COVID-19 in Ibadan metropolis, Oyo State, Nigeria. On the basis of the research findings, it is recommended that public secondary school teachers should be digitalised and adopt the use of technology in teaching-learning activities.

Keywords: Digital Technology, Public Secondary School, Teacher, Work Performance, COVID-19

Introduction

Performance is defined as the organization's accomplishment of the set objectives. It includes results that have been accomplished or realized as a consequence of individual or group efforts to advance the strategic objectives of the company. Performance includes both financial and behavioral results (Onaolapo, Olajiga & Temitayo, 2019). It is seen in the light of the choices made and the expected results. It is the work put forth by the doer to achieve desired results. To perform successfully at work is everyone's ultimate goal (Onaolapo, Olajiga & Temitayo, 2019). It's the genuinely attainable goal of any firm. It has to do with a worker's conduct at work and how well their job tasks are completed. Teachers' problem-solving abilities, inventiveness in the classrooms, attitude toward teaching, and attitude toward work are all factors that affect how well they do at work (Blazar & Kraft, 2016). Because of their creativity, teachers can bring new perspectives to the classroom, develop their teaching pedagogy, and modify instructional aids and resources to enhance the teaching-learning process. On the contrary hand, teachers' perspectives on their work

as educators reflect their capacity to finish any given task (Daudi, Josta & Nzilano, 2019). The effectiveness of a secondary school educator determines the strengths, weaknesses, and potential management gaps in the educational environment (Daudi, Josta & Nzilano, 2019). Tasks are correctly completed by efficient staff the first moment (first-time right). For instance, a customer service agent who consistently leaves work unfinished or who fails to finish a client's report might not be able to meet the company's goals (Ogunsola, 2015). A teacher who implements a curriculum in the educational field makes every effort to achieve the desired outcomes (Obadimeji, & Oredein, 2022). A teacher is someone who devotes their time and energy to instructing others. To be regarded as a professional teacher, a teacher must have mastered the fundamental teaching techniques and be certified to implement the curriculum in a classroom setting. The following skills are therefore necessary for a professional teacher to have: professional knowledge, teaching pedagogical expertise, etc. A global problem in the twenty-first millennium is teacher performance. Academic achievement of a pupil is no longer the only standard by which to judge a teacher's performance. The degree of performance by the teachers in the classroom will be good to great if the teacher is technologically aware and knowledgeable, as this can also have an impact on the teacher's work performance (Munirah Khalid, 2022). The degree to which a teacher engages in and performs at work is strongly influenced by his or her level of self-effectiveness (Schleicher,2020). Performance is assessed using stated duties, objectives, goals, and fair expectations related to a profession, and industry. Several factors, such as risk management, job quality, judgment, speed, competence, and teacher attitude to work, to mention a few, can be used to evaluate a teacher's performance at work (Sheninger, 2017). Teachers should do their duties with precision, neatness, attention to detail, consistency, thoroughness, high standards, and adherence to procedures (Redecke,2017). Using technology to teach pupils is easier in some institutions (mainly private secondary schools), while it is more challenging in others (primarily public secondary schools) (public secondary schools). Work performance refers to the act of completing a job (Sanjay, 2017). Work performance is a tool for accomplishing a goal or set of objectives inside a position, function, or organization, but it doesn't represent the real results of the actions conducted there (Pokhrel, Pokhrel, & Chhetri, 2021).

Digital teaching is the method of using technology, such as computers and phones, to strategically further educational objectives. Institutional and individual responses are both possible to this. When put into a more personal perspective, this is typically carried out by staff members in charge of monitoring digital assets. These teachers of digital thought will examine how technology might make their institution more receptive to student demands and dynamic industry demands. An effective digital educator appreciates the worth of incoming information and the business procedures that support it (Elena-Lulianalon & Criveanu, 2016). They value their ability to communicate, their creativity, and their eagerness to experiment with new developing technology in order to help commercial projects. Today's world makes it clear that balancing the needs of teachers, businesses, and the entire workforce involves using digital technology. According to statistics, 42% of the nation's top academic institutions now think that training teachers is crucial to success in the digital age (Das, 2019). The twenty-first century is the era of the information economy. The knowledge-based economy enters production and competitiveness as a way to navigate any organization's new success (Courros, 2013). What you can accomplish with what you currently have is what matters. Data, which can be utilized to transform information into a

product, is the foundation of everything. It serves as a more concrete element that can inspire new ideas for features in the future. Any organization's performance was forced to shift away from a profit-focused strategy and toward a more socialized objective as a result of these new circumstances. Including in educational institutions, notably secondary schools, and higher education, where the place to foster innovation as a means of assisting the organization's performance in the face of its existential issue (Yusuf, 2005). As a result, educational teacher is critical in assisting students in locating and potentially emerging as outstanding secondary school output that meets the expectation or goal of secondary education (Schaber, Wilcox, Whiteside, 2010). Digital teachers are primarily concerned with the use of technology in schools for the purpose of teaching and learning, particularly their role in overseeing ICT instruction, learning, and other ICT-related issues (Shiqian, 2018). Additionally, it has been found that digital teacher is particularly vital for teachers to implement and foster innovations attached to ICT (Olayanju, 2016). A school teacher is both a teacher of change in enhancing school technology and an expert in technology teacher (Olayanju, 2016). School teachers, who are the principals and teachers, are now transforming themselves on what the industrial revolution is pushing with to elevate the current education system in which their technological teacher is pointed out on how it will further enhance the technical proficiency of their teachers.

A secondary school teacher is someone who has fulfilled the Nigerian Federal Ministry of Education's basic teaching requirement, which is the NCE (National certificate of Examination). According to research, some secondary school teachers still have difficulty carrying out the assignment given to them, such as not teaching effectively, not using teaching aids and instructional material, not using proper teaching methodology that best suits the subject and topic they are teaching, and having little or no knowledge of how to use technology. Students in junior and senior high schools are taught by secondary school teachers. They teach academic courses like English and mathematics, as well as skills like mechanical drawing and woodworking. Any educational institution's greatest asset is its teachers. It is impossible to overestimate their contribution to educational success. As a result, in order to maximize work performance, these unique assets must be equipped through proper training. They'll also be more prepared to meet the challenges of today's competitive corporate environment. They begin with the basics and gradually increase in complexity in order to stimulate students' imaginations and intellect while also preparing them for advanced school and adult careers. Teachers also assist their colleagues in developing new methods and resources for their classes, as well as organizing extracurricular activities such as sports and social clubs.

Statement of the Problem

In 2020, when the coronavirus pandemic caused a lockdown in Nigeria, many governmental, social, religious, and educational activities including teaching and learning were obviously hindered, notably in Oyo State. Researchers have noted that secondary school teachers' performance at work is adversely affected when they lack a digital aptitude. This is because secondary school teachers' ability to carry out their duties to ensure the smooth action of the school process is impacted, which has a significant impact on the teachers' work performance (Akosile & Olakotun, 2019). Teachers perform various duties in helping students to realize their academic potential, evaluating the curriculum, and carrying out school leaders' directions to meet stated goals and objectives. There appear

to be problems with how well teachers carry out their jobs, particularly when it comes to teaching and interpreting academic job descriptions. With the post-COVID-19 era and its requirements in mind, instructional strategies that incorporate the use of information and communication technology tools as well as proficient use of digital skills and knowledge greatly improve the current work performance of teachers. However, approximately three months after the complete lockdown, teachers in private secondary schools began online teaching-learning initiatives, while those in public secondary schools in Oyo State solely used radio to impart knowledge. This suggests that technologies or virtual learning could not be implemented in public secondary schools in the city of Ibadan to improve the situation. This inability to use technology for teaching and learning activities may be caused by a variety of causes, including the cost of data, network problems, lack of or insufficient infrastructure, insufficient power supply, and secondary school teachers who are not technologically savvy to mention few. Researchers have documented the relationship between teachers' work performance and various other characteristics (Christopher, Benjamin & Jessica, 2017). However, little or no research has been done regarding the relationship between teachers' usage of ICT and their ability to do their jobs. Given the foregoing, there is a need to study the relationship between digital teacher and teachers work performance in the COVID-19 period in Ibadan metropolis, Oyo State.

Aim and Objectives of the Study

The aim of the study is to investigate the relationship between the digital teacher and public secondary school teachers work performance during COVID-19 in Ibadan Metropolis

The objectives are to:

- i identified the level of public secondary school teachers' work performance (creativity, attitude to teaching, and problem-solving ability) in the COVID-19 era in Ibadan metropolis, Oyo State
- ii ascertain the extent of public secondary school teachers' digitalisation in Ibadan metropolis, Oyo State
- iii determine the relationship between digital teacher and work performance of secondary school teachers during COVID-19 in Ibadan Metropolis, Oyo State

Research Questions

The following research questions are formulated

1. What is the of public secondary school teachers' work performance (creativity, attitude to teaching, and problem-solving ability) in the COVID-19 era in Ibadan metropolis, Oyo State
2. What extent is public secondary school teachers digitalised in Ibadan metropolis, Oyo State

Hypothesis

The following hypotheses are formulated

- H₀₁: There will be no significant relationship between digital teachers and work performance of secondary school teachers during COVID-19 in Ibadan Metropolis

Methodology

Design

In order to gather information about and systematically describe the characteristics, features, or facts about public secondary school teachers' digitalization level and work performance during the COVID-19 pandemic in Ibadan metropolis, Oyo State, this study employed a descriptive survey research design.

Selection of Participants

Ibadan Metropolis is made up of eleven (11) local government areas, with a total of two hundred and twenty-eight (228) schools and eight thousand, seven hundred sixty-two teachers (8762). Multistage sampling procedure using the cluster, purposive and simple random sampling techniques to select the sample size of 505. In stage one, the cluster sampling technique was used to select 219 out of 228 schools. In the second stage, the schools were clustered into urban and semi-urban cities. In stage three, 51 schools were purposively selected from urban and 50 from semi-urban cities having a total of 101 public secondary schools as sampled schools based on the year of the establishment. In the last stage, a simple random sampling technique was used to select 5 teachers from each school making a total of 505 teachers.

Procedure for Data Analysis

A quantitative research approach was used to elicit data from the respondents. A self-structured questionnaire called the teachers' questionnaire (TQ) was developed. The instrument was divided into three sections. Section A items were tailored to the demographic data of the teachers. Section B items addressed the indicator measuring the teachers' work performance and C items addressed the extent to which teachers are digitalised using four Likert-scale rating which was extrapolated from the content to address the research questions raised and the hypothesis.

Ethical Consideration

In order to increase the study's credibility, validity, and reliability, Lead City University's ethical standards for data collection, analysis, and interpretation were meticulously followed.

Analysis of Data

Descriptive statistics like frequency, mean, standard deviation, graph and percentage were employed to measure sections A and B of the structured questionnaires. An inferential statistical tool known as Pearson Product Moment Correlation was employed to determine the significant relationship between the independent variable on the dependent variable at a 0.05 level of significance.

Results

Research Question One: What is the level of public secondary school teachers' work performance (creativity, attitude to teaching, and problem-solving ability) in the COVID-19 era in Ibadan metropolis?

Table 1: Showing the identified level of public secondary school teachers work performance in the COVID-19 era in Ibadan Metropolis.

S/N	Items "I"	Very Often		Seldom		Rarely		Never		Mean	SD
		Freq	Per(%)	Freq	Per(%)	Freq	Per(%)	Freq	Per(%)		
1	teach students basics and leave them to find out more for themselves	275	54.2	194	38.4	28	5.5	8	1.6	3.46	0.584
2	improvise instructional materials to teach students	143	28.3	315	62.4	47	9.3	0	0.0	3.19	0.584
3	provide opportunities for my students to share their strong and weak points with the class	199	39.4	226	44.8	76	15.0	4	0.8	3.23	0.725
4	encourage my students to try out what they have learned from me in different situations	160	31.7	276	54.7	67	13.3	2	0.4	3.18	0.660
5	probe student's ideas to encourage them to think and motivate them to learn	119	23.6	275	54.5	108	21.4	3	0.6	3.01	0.689
6	look forward to the change make use of different teaching techniques while teaching	103	20.4	261	51.7	130	25.7	11	2.2	2.90	0.735
7	improvise different instructional materials when not available	145	28.7	280	55.4	57	11.3	23	4.6	3.08	0.759
8	make lessons more enjoyable and alleviates try to achieve the stated objectives of the lesson within the given time frame	143	28.3	268	53.1	92	18.2	2	0.4	3.09	0.688
10	feel less of myself when they couldn't provide the solution to a given problem	144	28.5	245	48.5	109	21.6	7	1.4	3.04	0.746
11	am always ready to seek solutions to teaching-learning problems	165	32.7	213	42.2	91	18.0	36	7.1	3.00	0.891
12	try to ask for student feedback while teaching	168	33.3	239	47.3	79	15.6	19	3.8	3.10	0.794
13	am always ready to make use of the internet in seeking for more knowledge	152	30.1	297	58.8	48	9.5	8	1.6	3.17	0.656
14	make use of the internet to find out more about teaching-learning skills	118	23.4	286	56.6	98	19.4	3	0.6	3.03	0.672
15		207	41.0	209	41.4	80	15.8	9	1.8	3.22	0.771
Weighted Mean										3.13	

Decision Rule: Weighted mean < 2.50 means **Low**, 2.50to 2.99 means **Moderate**, > 3.00 means **High**

Table 1 demonstrates a moderately high level of work performance (creativity, attitude to teaching, and problem-solving ability) among public secondary school instructors during the COVID-19 era (weighted mean = 3.13). The study also shows that teachers' creativity

level is the highest (39%) among the three indicators for measuring work performance followed by problem-solving ability (32.1%) while their attitude to teaching is 28.9%. This implies that teachers in public secondary schools mostly teach pupils the fundamentals while letting the students pursue further learning on their own. Teachers do not make teaching more enjoyable to students compared with the olden days when students will always love to go to school.

Research Question Two: To what extent are public secondary school teachers in Ibadan metropolis digitalized?

Table 2: Showing the extent to which public secondary school teachers are digitalized

S/N	Items “I”	High Extent		Extent		Low Extent		Very Low Extent		Mean	SD
		F	Per (%)	F	Per (%)	F	Per (%)	F	Per (%)		
1	am digitally inclined	332	65.7	127	25.1	43	8.5	3	0.6	3.56	0.673
2	appreciate that innovation is more than just creativity	226	44.8	259	51.3	20	4.0	0	0.0	3.41	0.567
3	place value on my communication and creativity skills	231	45.7	205	40.6	69	13.7	0	0.0	3.32	0.702
4	enjoy learning through new technologies and equipment	155	30.7	308	61.0	41	8.1	1	0.2	3.22	0.590
5	attend seminars and in-service training programmes to grow my teaching skills	209	41.4	256	50.7	40	7.9	0	0.0	3.33	0.618
6	create a high-performance environment where success is inevitable	129	25.5	334	66.1	42	8.3	0	0.0	3.17	0.556
7	awake possibilities in people to deliver extraordinary results	201	39.8	232	45.9	72	14.3	0	0.0	3.26	0.690
8	make use of ICT to store and record information	216	42.8	246	48.7	39	7.7	4	0.8	3.33	0.652
9	tend to overcome barriers to reach goals	258	51.1	191	37.8	53	10.5	3	0.6	3.39	0.697
Weighted Mean										3.33	

Field Survey, 2022

Decision Rule: Weighted mean < 2.50 means **Low**, 2.50to 2.99 means **Moderate**, > 3.00 means **High**

The research question mentioned above is addressed in Table 4.4. The weighted mean, which was obtained using the preceding data, is 3.33, which is high. This suggests that teachers in public secondary schools have embraced technology. It is possible for teachers to embrace technology; however, many teachers only use technology for socials and not education. In order for secondary school teachers to advance in their careers and for the fourth industrial revolution as a whole, digitalization is one of the most important components. As a result, it has been successful in advancing education to this point. An overview of what happened during the Covid-19 pandemic (which resulted in a nationwide

lockdown) and how, in the Ibadan metropolis of Oyo State, children of school age spent their time viewing home films, playing video games, and watching cartoons instead of receiving an education or engaging in the teaching-learning activities.

Presentation of Test of Hypotheses

In this study, two established hypotheses were developed and tested at a significance level of 0.05.

Ho1: There will be no significant relationship between digital teachers and work performance of secondary school teachers during COVID-19 in Ibadan Metropolis.

Table 3: Showing the significant relationship between digital teachers and work performance of secondary school teachers during COVID-19 in Ibadan Metropolis.

	Work performance of secondary school teachers during COVID-19 era in Ibadan Metropolis	Digital teacher
Work performance of secondary school teachers during COVID-19 era in Ibadan Metropolis	1	.841**
Digital teacher	.841**	1

** . Correlation is significant at the 0.01 level (2-tailed).

Table 3 reveals that there exists a positive relationship ($r = 0.841$) between digital teachers and work performance among public secondary school teachers in Ibadan metropolis. This implies that the more public secondary school teachers are being digitalised, their work performance also increases. This is due to the fact that teachers that are digitalized and use technology in their lessons typically possess in-depth knowledge of the technology industry, advancing the state's educational objectives.

6. Discussion of Findings

A method for furthering educational objectives through the intelligent use of technology such as computers, smartphones, and the internet is known as digital teaching. Educating people is a career. It is the process of imparting knowledge from the informed to the uninitiated. In order to achieve a worthwhile result, entails working with students (learners) to help them understand and decode the concept, apply their information, and process it. Teachers are people whose job is to impart knowledge to secondary school pupils enrolled in public institutions so that they can make valuable contributions to society. Those who devote their time and energy to instructing students are known as teachers. A teacher is someone who carries out the curriculum in an educational setting (Olakunlehin, 2007). The environment's positives, negatives, and potential management gaps are influenced by the effectiveness of a secondary school teacher. A person can also be regarded as a teacher if they have obtained professional development in teaching methods. It is likely that the instructor is a certified teacher given that public secondary school teachers in the city of Ibadan can begin instruction from known to unknown. This is in line with studies looking at how innovative teaching practices and digital teaching methods affect students' learning (Olayanju, 2016). One of a teacher's duties as a professional is to be able to use educational strategies including technology, a variety of methodologies, teamwork, creating a good learning environment, and encouraging students to try new things as part of their learning.

Educational institutions need teachers who are passionate about improving the quality of learning outcomes. In Ibadan metropolitan, this is followed by the fundamentals of teachers instructing students and then giving them the opportunity to find more for themselves with a percentage of (54.2%). This shows the innovation of the secondary school teachers in the Ibadan metropolitan. The inventiveness of their teachers and the academic accomplishment of their students are closely tied. This further supports a study that found that instructors' work performance determined certain factors, such as inventiveness. Students receive indirect instruction from teachers through their creativity. Even when it's challenging, it inspires children to be creative in the classroom and keeps them interested both inside and outside of the classroom.

This is consistent with the study, which shows that instructors' work effectiveness is determined by their capacity to employ instructional resources to foster a positive learning environment (Ezenma, 2019). This act has an impact on teachers' problem-solving abilities, leading them to use the internet to learn more about teaching and learning techniques in a percentage of 41.0%, with the least number of teachers using the internet to gain information in a percentage of 0%. (23.45). It was found that some teachers do not use the internet for information to learn more about their teaching-learning capabilities. This may be determined by the type of phones they used, their access to internet resources, or their carefree attitude toward using the internet, among other factors.

According to Table 2, the Ibadan metropolis's school administrators are heavily digitized. The study's findings support the notion that secondary school teachers in public institutions use technology to improve their students' learning and teaching experiences. Teachers in public secondary schools were shown to appreciate their originality when utilizing the internet. A teacher's power to shape students' knowledge in the twenty-first century extends beyond their mastery of interactive whiteboards and instructional materials to include their degree of technological digitalization. Technology has greatly improved, and individuals now use their phones for more than just making phone calls, texting, taking pictures, and using WhatsApp. Teachers now put up software (educative software) for extra helpful tools like Zoom, Google Class, Youtube, and Dropbox, among others. A conference call can be held with all of the students at the school thanks to technology. Additionally, they can digitally or remotely plan and fix symposiums to support their teachers' work performance in the Ibadan Metropolitan Area. This is true, says a study on how digital leadership influences the creation of business models. Digital-era innovation (Bazelais, Doleck & Lemay, 2018).

In addition, it supports a study that found that managing an employee's performance at work and suggesting potential solutions to problems at work demand more work from teachers or leaders who guide others through the use of digital devices (Donmez-Turan, 2020). Public secondary school teachers in the Ibadan metropolis must be more digitally savvy in order to increase their productivity. The country's educational system is evolving significantly, and the world is moving toward a digital age.

The result shows that there is a highly positive relationship between the extent to which teachers are digitalised and their work performance. This demonstrates how ICT may be

used by school teachers in the city of Ibadan to affect how well they perform at work as they become more digitally literate. This is consistent with research showing that digitalization is a potent tool with the potential to affect teachers' work effectively in the now and the future (Karakose, 2021). This means that secondary school instructors can use digital learning strategies and utilize ICT to enhance student learning outcomes and job performance. Additionally, it backs up the Unified Acceptance Theory of Information, Communication, and Technology, which bases its premises on how systems interact, change and affect their environment (Ratheeswari, 2018). To affect the work performance of public secondary school teachers in the Ibadan metropolitan, it is necessary for educators to become more digitally literate.

A digital teacher is one that stills knowledge into the student's lives through the use of technology. Digital teaching is a strategy for advancing educational goals by strategically utilizing technology like computers, smartphones, and the internet. Being a teacher is a profession. It is the act of passing on knowledge from the knowledgeable person to the ignorant person. It involves working with students (learners) to help them comprehend and decode the concept, apply their knowledge, and process it in order to produce a valuable outcome. A digital teacher is someone who practices and works in the virtual world using cutting-edge technology to enhance the success of the institution in a cutthroat industry (Starkey, 2019).

Conclusion

According to the study's findings, Teachers in Ibadan's public secondary schools do well at their jobs thanks to their ingenuity, positive attitudes toward their students, and ability to solve problems, with the exception of when they utilize the internet to look for information. Teachers use the internet less to seek out additional knowledge to advance their teaching-learning abilities and more to communicate and watch movies.

Again, the survey has shown the truth about the level of digitalization among public secondary school teachers in Oyo state's Ibadan metropolis in the modern day. Additionally, it demonstrates how highly digitalized secondary school teachers are. According to the study, there is a relative relationship between digital teachers and teachers' work performance in Oyo State's Ibadan metropolis. The performance of public secondary school instructors across the state would be enhanced by the digitalization of education. In conclusion, this study also demonstrates the enormous impact that digital teaching, information communication, and technology have on public secondary school teachers' work performance, particularly in terms of their problem-solving skills, creativity, and attitude toward instruction.

Recommendations

Based on the findings of this study, the following recommendations were made.

1. Public secondary school teachers should make use of adequate instructional materials at all times to teach students during teaching-learning activities to improve students' learning outcomes.
2. Public secondary school teachers should always look for modern ways to incorporate Information Technology into teaching.

3. Government needs to re-evaluate teachers and create a standard way for school teachers to effectively use technology.
4. Public secondary school teachers should develop themselves in the use of software programs, and applications among others.
5. Public secondary school teachers should adopt the use of technology in their teaching-learning activities.

Reference

Akosile Adedolapo & Olakotun Wole (2019). "Factors influencing knowledge sharing Among Academics in Bowen University, Nigeria. **Journal. Librarianship and Information Science**, Vol.52, (2), pp. 410–427

Allen. Jeanne, Rowan. Leonie, & Singh. Parlo (2020). Teaching and Teacher Education in the Time of Covid-19. **Asia-Pacific Journal of Teacher Education**. <https://doi.org/10.1080/1359866x.2020.1752051>. Vol46 (3), 233-236

Blazar, D. & M. A. Kraft (2017). Teacher and Teaching Effects on Students' Attitudes and Behaviours. *Educational Evaluation and Policy Analysis*, 39,146-170. <https://doi.org/10.3102/0162373716670269>

Couros. G. (2019). *Digital Leadership Defined*, Corwin Press: Thousand Oaks, CA, USA, 2013; Available online: <http://georgecouros.ca/blog/archives/3584> Das. K. The Role and Impact of ICT in Improving the Quality of Education: An Overview.

Elena-Lulianalon & Criveanu Maria (2016). Organizational Performance, A Concept that Seeks to find itself. *Annals of the Constantin Brancusi, University of Targu Jiu, Economy series issues 4*,.

Munirah Khalid Aljmi (2022). The Impact of Digital Leadership on Teachers; Technology Integration During the Covid-19 Pandemic in Kuwait, **International Journal of Educational Research**,. Free PMC article.

Obadimeji, C.C. & A. O Oredein (2022). 'Digital Leadership and Communication Styles on Public Primary School Teachers' Job Performance in Nigeria. **Science Journal of Education**, 10(1), , pp1-11.

OECD (2020). How Prepared are Teachers and Schools to face the Changes to Learning Caused by the Coronavirus Pandemic? *Teaching in focus* 32, Paris: OECD Publishing., doi: 10.1787/2fe27ad7-en. (Google Scholar) (CrossRef)

Ogunsola, L.A (2015). Information and Communication Technology and the Effects of Globalization: Twenty –First Century "Digital Slavery" for Developing Countries-Myth or Reality? **Electronic Journal of Academic and Special Librarianship**, Vol 6(1-2), pp1-10.

- Onaolapo Akinlolu, G. Olajiga Damilola & M. Onaolapo Temitayo (2019). Teachers Job Performance in Secondary Schools, Nigeria: The Effect of Family Satisfaction and Job Satisfaction, *International Journal of Business & Management*, Vol7 (3), pp65-69. ISSN 2321–8916, DOI:[10.24940/theijbm/2019/v7/i3/BM1903-011](https://doi.org/10.24940/theijbm/2019/v7/i3/BM1903-011)
- Pokhrel. S. Pokhrel, & Chhetri. R. (2021). A literature Review on Impact of Covid-19 Pandemic on Teaching and Learning. Higher Education for the Future. Vol8 (3), , pp133-141. <https://doi.org/10.1177/2347631120983481>.
- Redecker. C. (2017). European framework for the digital competence of educators (DigCompEdu). Joint Research Centre Science for Policy Report. EU: Luxembourg Publications Office. <https://ec.europa.eu/jrc/en/publication/euro-scientific-and-technical-research-reports/european-framework-digital-competence-educators-digcompedu>
- Sanjay. S. (2017). Digital Disruption is Redefining the Customer Experience: The Digital Transformation Approach of the Communications Service Providers. Telecom Business Review, New Delhi. Vol10, (1), , pp41-52
- Schaber. P, Wilcox. K. Wilcox, Whiteside. A. Whiteside, Marsh. L. Marsh, & Brooks. D (2010). Designing Learning Environments to Foster Affective Learning: Comparison of Classroom to Blended Learning. *International Journal for the Scholarship of Teaching and Learning*. Vol4 (2).. <https://doi.org/10.20429/ijstl.2019.0040212>
- Schleicher. A. (2020). The Impact of Covid-19 on Education Insights from Education at a Glance. Retrieved from oecd.org website <https://www.oecd.org/education/the-impact-of-covid-19-on-education-insight-education-at-a-glance-2020.pdf>..
- Sheninger. E. (2014). Pillars of Digital Leadership, International Center for Leader in Education. Rexford, NY, USA, Available Online: http://teachermedia.net/pdf/leadingintheDigitalAge_11.14.pdf
- Shiqian. L. W. (2018). Factors Affecting the Job Performance of Employees at Work Place in the Higher Education Sector of China, *International Journal of Scientific and Research Publications*, Vol8 (1), , ISSN 2250-3153
- Yusuf Daudi N Josta Lameck Nzilano (2019). Information Communication and Technology Integration in Teaching and Learning Perception N Practices of Secondary School Students in Tanzania. *Ubiversity Of Dares Salaam Library Journal*. Vol14 (2), pp38-52.
- Yusuf. M.O (2005). Information and Communication Technologies and Education; Analyzing the Nigerian National Policy for Information Technology, *International Educational Journal*, Vol 6 (3), , pp 316-321

TECHNOLOGY ENHANCED LEARNING TO IMPROVE THE QUALITY OF EDUCATION: IMPLICATION FOR ENGLISH TEACHERS

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Abstract

The paper discusses technology-enhanced learning as a tool for English teachers to improve the quality of education in the teaching and learning environment. The following words were clearly discussed: technology, technology-enhanced learning, educational quality, and how English teachers can use technology as a tool to increase student learning. The study is based on the Technology Acceptance Model 3 (TAM 3), which states that two variables affect whether a computer system will be adopted by its potential users: perceived usefulness and perceived ease of use. This means that English teachers must find the technology valuable for their teaching/work and that it is simple to use after they have gained the necessary knowledge and skills. The English teachers would be encouraged to learn and develop abilities in how to use technology so that they can use the learned skills to boost learning in their teaching, hence improving the quality of education provided to their pupils. The way forward is for English teacher employers or teachers to do everything in their power to train and retrain their English teachers or themselves in the use of technology on a regular basis.

Keywords: Technology, Enhanced Learning, Technology Enhanced Learning, Quality of Education, English Teacher

Introduction

Technology is a lifeline in the contemporary world; without it, humankind cannot survive. The COVID-19 outbreak serves to highlight how impossible it is. With the arrival of new technologies and devices, the educational sector has seen a vast amount of change. The way we learn has changed because of technology. With the use of technologies like mobile phones, laptops, tablets, and other similar devices, learning and our lives have become more colourful and entertaining. Technology is a tool that enables fact-based learning, students to conduct extensive research utilizing a variety of tools and the internet. Students can also acquire extremely beneficial research skills that they can apply to higher levels of study.

Digital cameras, projectors, laptop computers, power point presentations, and other technological advances have boosted learning across the world. Instructors, particularly English teachers, can now successfully use these technologies to help students learn and grasp teachings. With the help of visual explanations, students' learning has become more fun; for example, technology has boosted the globalization of African students by allowing them to communicate with classmates electronically without having to travel to a specific area. As a result, to boost student learning, English teachers must learn and relearn how to

use technology. This will allow them to improve the quality of instruction for their students. The paper delves into subthemes such as technology, increased learning, educational quality, English instructors, technology-enhanced learning, and teacher implications, and (2) perceived ease of use. Perceived utility refers to P self's gain of

Technology

The term 'Technology' itself is not easy to define (Reddy & Zhou, 1990); therefore technology has been defined from different perspectives by previous kinds of literature. According to Kumar, Kumar and Persaud (1999), technology consists of two primary components: 1) a physical component which comprises items such as products, tooling, equipments, blueprints, and processes; and 2) the informational component which consists of know-how in management, marketing, production, quality control, reliability, skilled labour and functional areas. Mackenzie and Wajcman (1985) define technology as the integration of the physical objects or artefacts, the process of making the objects and the meaning associated with the physical objects. These elements are not distinctive and separable factors but form a 'seamless web' that constitutes technology (Woolgar, 1987). In defining the term technology, all the three elements must be understood as being interconnected to each other and a change in one element will affect the other two elements. Other scholars such as Tepstra and David (1985) suggest that technology as a cultural system is concerned with the relationships between humans and their environment. From the system perspective, Afriyie (1988) defines technology as encompassing: 1) the basic knowledge sub-system; 2) the technical support system (software); and 3) the capital-embodied technology (hardware). This viewpoint on technology acknowledges the necessity to pinpoint the various technological components in each nation that really are complementary and reinforce one another. Hawkins and Gladwin (1981) see technology as the specialized knowledge pertaining to the production of goods and services in organized economic activity, including the knowledge and skills required to manage a set of interrelated technical processes.

Technology according to Levin (1996) is not really a 'thing'; it is better characterized as an approach. It is the application of scientific principles to solve practical problems. Technology has been described as having three facets: materials artefacts (things), the use of artefacts to pursue a goal, and the knowledge to use these artefacts. Technology is the utilization of scientific knowledge for practical applications, whether in daily life or business.

Technology is a useful tool for education, but it is essential to remember that it cannot fix problems on its own. Its value and relevance come from how teachers put it to use to meet the unique needs of their pupils and enhance the learning experience for all.

Enhanced Learning

Ambrose, Bridgetts, DiPietro, Lovett, and Norman (2010), define learning as "a process that leads to change as a result of experience and enhances the potential for greater performance and future learning" (2010, p3). Currently, there is a shared emphasis on increasing student accomplishment while incorporating technology as a tool. Politicians and educators are reaffirming their commitment to programs and instructional approaches

that will have the greatest possible impact on education and student outcomes. Because of the widespread use of technology in today's world, incorporating technology into teaching and learning is critical if we are to have a long-term impact on how kids learn. Technology aids student learning. Students that use technology are more engaged and often retain more material.

Excellent educational opportunities are provided by technology. Technology also allows for active learning, which can be incorporated into all subjects taught in schools, including English. Learning causes students to develop new perspectives on concepts, ideas, and/or the world, resulting in changes in their behaviour, attitude, or level of knowledge. Students actively participate in their own learning, which is the outcome of how they perceive and react to what they are taught as well as their personal experiences. Enhancement, along with empowerment, was recognized by Harvey and Green (1993) as part of a transformative approach to quality: Improving the participant:

A quality education is one that effects changes in the participants and, thereby, presumably enhances them. Value-added notions of quality provide a summative approach to enhancement (Astin, 1985, 1991; CNA, 1990; Kogan, 1986). In a statement made in 2006, the UK's Quality Assurance Agency for Higher Education (QAA) connected quality improvement/enhancement to assurance as it was observed by organizations. Quality as enhancement or improvement: focusing on the continuous search for improvement, stressing the responsibility of the higher education institution to make the best use of its institutional autonomy and freedom.

Enhancement is seen by Campbell and Rozsnyai (2002) as a definition of quality, quality as development or improvement. This idea places a focus on the pursuit of continual improvement and is based on the idea that achieving quality is essential to the academic ethos and that academics themselves are the best people to determine what quality is at any given time.

Quality of Education

Quality embodies the inherent nature of a person, group, object, action, process, or organization. It denotes a high grade or status (as in a quality performance), and it is a term used in higher education to refer to quality evaluation systems. Harvey (2004-23). According to the UNESCO definition of quality (Vlasceanu et al., 2007), quality in higher education is a multi-dimensional, multi-level, and dynamic concept that relates to the context of an educational model, the institutional mission, and objectives, as well as specific standards within a given system, institution, program, or discipline. Thus, quality can have different connotations depending on: (i) the perceptions of various constituencies or stakeholders in higher education (quality requirements set by students, university disciplines, labour markets, societies, and governments); (ii) its references, such as inputs, processes, outputs, missions, and objectives; (iii) the academic world qualities or characteristics that are necessary for evaluating; and (iv) the historical pedigree. Academic quality has been described in a variety of ways by different people.

Doherty-Delorme and Shaker- (2001) define quality as the degree of excellence of the entire educational experience. A high-quality education depends on the provincial and federal governments' commitment to fostering a well-rounded educational experience and environment. In part, this includes: the quality of student life; the adequacy of university or college finances; the breadth of disciplines and modes of learning offered; and student access to tenured faculty. Houston et al. (2008) report that quality in teaching is predominantly in relation to the value added to or gained by students. Almost half the staff focused almost immediately on the ability of graduates to perform in the workforce: the threshold for quality of teaching outcomes is the employability of graduates.

From the criteria, quality is defined differently, notably in education. UNICEF defines quality education as the learner's outside experiences, learning environment, the substance of education, learning processes, and education results. Healthy, well-nourished, and family-supported students are essential. Learning should be safe, healthy, and stimulating. A well-managed classroom presents relevant instructional content. Learning results should support society." The basic education cycle must contain literacy, numeracy, basic scientific knowledge, and life skills including disease awareness and prevention. This method requires capacity building to strengthen teachers and other education stakeholders. To summarize, great education entails healthy learners, a healthy environment, and information that is reflected in relevant curricula and brought to life through the teaching and learning process, all of which will undoubtedly contribute to improved learning outcomes.

English Teachers

English teachers teach English. ESL teachers in affluent nations like the U.S. Assist students to speak and write English fluently. US public schools have over 5 million English language learners (ELLs). Technology is the key to establishing a productive and fun learning environment for so many English learners of all ages. Education has always used technology. Modern students are no longer engaged by pencil, paper, and chalkboard instruction.

Technology helps ELL pupils.

In recent decades, the learning technique has greatly influenced empirical language teaching studies, especially English. Currently, EFL teachers use it as a method. Learning strategy as a key English language teaching issue is one thing. This leads us to wonder why learning technique is crucial in language education. A learning strategy is a person's technique of organizing and employing a set of skills to study content or complete other tasks more efficiently in school and outside of school. (Schumaker & Deshler,1992). Methods Education promotes active learning by teaching students how to study and apply their knowledge to solve problems and succeed. These tactics show how to create a test-study strategy, monitor understanding, clarify information, and evaluate work. Goal setting, self-instruction, and self-monitoring are essential to lifelong learning (Graham, Harris, & Reid, 1992).

English Teachers face a rapidly changing context characterized by mobility, migration, and diversity. To successfully address these challenges English teachers should be equipped with the necessary knowledge, skills, and competencies. Thus, teacher training and

ongoing professional development are crucial (European Commission, 2013). An important point to keep in mind is that teachers who pursue professional development and enhance their own knowledge and skills serve as models for their learners (Zuzovsky & Donitsa-Smidt 2017). Teacher professional development can create and contribute to a culture of learning in schools (Marzano, 2012).

Professional development involves “improving staff skills and competencies needed to generate great educational results for students” (Hassel, 1999). According to Darling-Hammond and Richardson (2009), effective professional development for teachers deepens content and pedagogical content knowledge and focuses on how to best mediate it for learners based on their learning styles and challenges (2009). Current educational research recommends effective curricula and instruction and high-quality professional development based on solid theories of teacher learning (Richardson & Placier, 2001). An effective teacher's features may depend on several factors, including educational and cultural background, class type, institution, and learner profiles. Teachers need tools to solve numerous difficulties.

Professional teaching frameworks seek to describe teaching excellence in all of its facets and complexity and provide high but achievable goals for teacher practice. In setting standards, it is beneficial to “build on what is known about effective teaching practices, describe what exemplary performance looks like, and serve as a guide for developing the related components” (Goe, Biggers & Croft, 2012).

Technology-enhanced Learning

The successful completion of various activities and tasks in different sectors like the use of technology in the educational sector has been applied to improving and making the teaching-learning process more appropriate, effective, and efficient for the students as well as the teachers. Students in today's schools are lucky to have access to many technologies' equipment and internet technologies (Baytak, Tarman & Ayas. 2011). While using technology in the classroom makes classes enjoyable for the students, they can also learn at their own pace since they have access to the needed content wherever they are and whenever they want. This allows students to pick up new skills quickly. Technology-assisted instruction and learning can lead to beneficial changes, enhancements in student performance, and fruitful learning outcomes.

Using technological tools like an interactive whiteboard can increase students' interest in learning. Whether a student is a slow learner, laggard, or disabled, if they can learn easily, the classroom will become livelier and a more enjoyable place to study for everyone. Teachers can instruct students using a range of technological tools, which also helps them progress the way they teach by allowing them to create pedagogies that are tailored to the requirements and interests of each individual student. Technology-assisted learning is crucial in today's classrooms and schools. Technology was deemed to be an urgent need for the child's education by experts, parents, governments, leaders, and instructors worldwide.

It is widely acknowledged in the western world that technological advancements have an impact on how individuals share, create, use, and produce information in society. The youth need to be extremely adept at using information and communication technology (ICT). The teachers who are for teaching many years can integrate with the recently graduated teachers. The reason behind this is that recently graduated teachers are aware of the technology and can benefit their colleagues. These two groups of teachers can work together for planning lessons that use the strengths of the teaching and learning process of both (Ranasinghe & Leisher, 2009).

The main justifications for employing technology in education are the necessity to stay up with society and to prepare pupils for it. Technology has been cited by researchers and educators as a means of boosting student motivation and engagement, accommodating different learning preferences, and enhancing learning results. The instructor uses a variety of technical tools for the students to improve the teaching-learning process. These technologies assist teachers to develop assessments, communicate tasks to the students they are intended for, and enrich the teaching-learning process (Kausar & Majid, 2021).

Schools and society have adopted technology at an exponential rate and will continue to do so. Technology is helping teachers in their duty of providing structure and guidance to pupils, monitoring progress, and evaluating their actions. Technology is being used by students to carry out research projects, analyze data, solve issues, build products, and evaluate their own work. To generate and express new knowledge and understanding, students might collaborate with others. To help the kids learn efficiently, the instructor must gain experience with and knowledge of technological use.

Theoretical Framework

The Technology Acceptance Model (Davis, 1989), or TAM, posits that there are two factors that determine whether a computer system will be accepted by its potential users: (1) perceived usefulness-refers to a user's subjective probability that using a specific system/technology will increase his or her job performance, and (2) perceived ease of use-refers to the degree to which a user expects use of a system/technology to be free of effort. That is, while the creator of a given technology product may believe the product is useful and useful and user-friendly, it will not be accepted by its potential users unless the user shares those beliefs. The theory posits that perceived usefulness (PU) and perceived ease of use (PEOU) have a direct affect behavioral intention (BI)

This theory in simple terms means that the intention of anybody to make positive use of technology is basically his/her decision based on the fact that the person has a strong belief that the particular action will be beneficial to him or her.

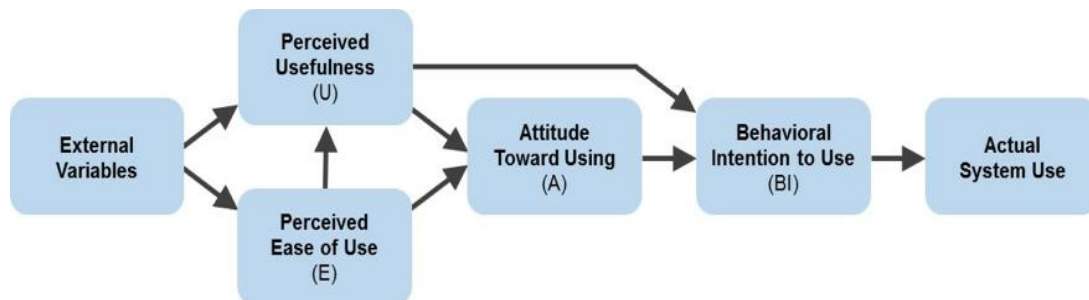


Figure 1: Technology Acceptance Model (TAM) from Davis, 1989.

The External Variable (EV) here is the technology to be used to enhance learning. Perceived Usefulness (PU) is the English teacher’s subjective probability that by improving him/herself by acquiring skills and knowledge equipping the self to be able to improve and enhance the learning of his/her students. The Perceived Ease of Use (PEU) is the English Teacher being so familiar with technology through the acquisition of the knowledge that he/she finds it easy to transfer all he/she has learnt into the teaching of his/her subject matter enhancing the teaching and learning process making his/her students understand and acquire knowledge easier and better. Attitude Toward Using (ATU) posits that the English Teacher has a positive attitude to the use of technology will improve his/her job performance. Behavioral Intention to Use (BI) is giving English Teachers the courage and confidence that employing the technological knowledge acquired in teaching his/her students will yield positive results for both teacher and students propelling the English Teacher into the Actual System Use. (ASU)

This is to mean that whenever we know that an action taken by us will bring positive results to not only us but to the people around us, this knowledge serves as motivation for us to put all our efforts into making such an action a successful and rewarding endeavour and exercise.

Implications for English Teachers

The above has consequences for English teachers in that they must continue to learn new things about the devices, apps, material, and students to use technology as a tool to enhance learning. The teacher can improve comprehension while providing new views and a deeper awareness of global realities to the students by incorporating a web-enabled dimension into the teaching and learning environment. Students and teachers can access global education through online interactions. The above has consequences for English teachers in that they must continue to learn new things about the devices, apps, material, and students to use technology as a tool to enhance learning. The teacher can improve comprehension while providing new views and a deeper awareness of global realities to the students by incorporating a web-enabled dimension into the teaching and learning environment. Students and teachers can access global education through online interactions.

Technology can be a huge asset for teachers to help increase educational achievement, especially when other resources and funds are limited or in some cases, non-existence. Teachers are always looking to improve student achievement by increasing quality

instructional time. Digital devices like tablets, phones, desktops and laptop computers can change teacher and student roles, which can give teachers more time to focus on how to make the most impact through content interactions. Benefits from technology in the classroom are realized when teachers intervene where it will be most timely and impactful. By providing more one-on-one interactions with their students, digital devices allow teachers to manage and assess individual student progress and provide immediate feedback instead of waiting to check on student work through traditional after-school homework.

Technology when used correctly can give teachers more time by allowing them to provide differentiated instruction for students. Teachers can choose to lecture less and spend more time coaching students, as a group or individual, on how to use a digital device(s) to make discoveries on their own. Learning truly becomes centered on the students when they get the chance to explore at their own pace on digital device(s). Teachers use technology to boost their productivity, incorporate valuable digital tools to enhance their students' learning options, and boost student support and participation. Technology enables teachers to improve their teaching methods and tailor learning for their students. For teachers, automation is a big benefit of Educational Technology. Teachers can upload lessons to a Learning Management System (LMS) for students to access at their leisure.

Conclusion

It is no gain saying that technology has an inevitable and undeniable contribution in education, from providing intuitive learning materials to advancing them in each generation, technology has never taken its helping hand from the education system. The use of advanced communication in technologies in education helps English Teacher reach their students easily and it also helps students connect with their teachers or fellow students in real-time. Using new technological learning methods such as learning through games and using online e learning techniques in teaching by teachers improves the overall engagement of students in the classroom.

Teaching strategies based on educational technology can be described as ethical practices that facilitate the students learning and boost their capacity, productivity and performance. It also inspires positive changes in teaching methods on an international level. Teaching becomes easy using audio-visual presentations, projectors & computer presentations. Technology has a unique ability to collaborate live on a task or project and to share information with peers faster than ever before. From huddle spaces to remote work, technology is able to break down barriers. Teachers get access to online tools and apps that offer a unique setting for students to engage in projects, teachers and students can access information at anytime, anywhere.

Technology, especially digital technology and its connectivity, is becoming increasingly entwined in daily life. Being able to deal with not only familiar tech but strange and new devices will be an important part of students' future success. The future workplace will require students to have skills related to technology including the technical ability to use spreadsheet, word processors, databases and many other applications.

The Way Forward

We must all acknowledge that the use of technology in education is always evolving. It won't vanish; it won't stop being. The future of education is remote learning, and educational technology will continue to play a significant role in students' future learning. Teachers, parents, and other educational stakeholders must urge children to perform the following in order to strengthen these significant roles;

- Indulge in practical learning through educational apps
- Enhance time management skills with time tracking tools.
- Leverage the incorporation of virtual reality in learning.
- Continue to foster collaboration for better learning.
- Continue to benefit from the opportunity for personalized learning.
- Continue to Promote collaboration and the mutual exchange of information;
- Making sure that there are no gaps in technology use.

References:

- Afriyie, K. (1988). A Technology Transfer Methodology for Developing Joint Production Strategies I Varying Systems, In F. J. Contractor and p. Lorange (Eds.). Cooperative Strategies in International Business, 81-95.
- Ahmet Baytak, Bulent Tarman and Cemaletti Ayas. (2011). Experience Technology Intergration in Education: Children's Perceptions
- Campbell, C. & Rozsnyai, C., 2002, Quality Assurance and the Development of Course Programmes. Papers on Higher Education Regional University Network on Governance and Management of Higher Education in South East Europe Bucharest, UNESCO.
- Graham, S., Harris, K. R., & Reid, R. (1992). Developing self-regulated learners. Focus on Exceptional Children, 24(6), 1-16.
- Jennparker (2023). 5 innovative Ways to Use Technology for ELL Students.,
- Harvey, L., (2004-23). Analytic Quality Glossary. Quality Research International, <http://www.qualityresearchinternational.com/glossary/>
- Harvey, L, & Green, D. (1993). Defining Quality. Assessment and Evaluation in Higher Education, 18, 9-34. <http://dx.doi/10.1080/0260293930180102>
- Hawkins, R., & T. Gladwin. (1981). *Conflicts in the international transfer of technology: a US home country view*, In Sagafi-Nejad et al.
- Kumar, V., Kumar, U., & Persaud, A. (1999). Building Technology Capability through Importing Technology: The Case of Indonesian Manufacturing Industry. Journal of Technology Transfer, 24, 81-96. <http://dx.doi.org/10.1023/A: 1007728921126>

- Laura Goe, Kietha Biggers and Andrew Croft. (2012). Linking Teacher Evaluation to Professional Development: Focusing on Improving Teaching and Learning/Research and Policy
- Brief. Levin, M. (1996). Technology Transfer in Organizational Development: An Investigation into the Relationship between Technology Transfer and Organizational Change. *International Journal of Technology Management*, 2 (3), 297-308
- Linda Darling-Hammond and Nikole Richardson (2006). Research Review/Teacher Learning: What Matters. Vol 66/Number 5. pp 46-53.
- MacKenzie, D., & Wajcman, J. (1985). *The Social Shaping of Technology: How the Refrigerator Got Its Hum*, Milton Keynes: Open University Press.
- Marzano. (2012) Marzano Levels of School Effectiveness.
- Utkarsh Lokesh (2013). Technology and its Role in 21st Century Education.
- Reddy, N. M., & Zhao, L. (1990). International Technology Transfer: A review. *Research Policy*, 19, 285-307. [https://doi.org/10.1016/0048-7333\(90\)90015-x](https://doi.org/10.1016/0048-7333(90)90015-x)
- Ranasinghe A. and Leisher D. (2009). The Benefit of Integrating Technology into the Classroom.
- Raja, R. & P.C. Nagasubramani (2018). Impact of modern technology in Education.
- Ruth Zuzovsky and Smadar Donitsa-Scmidt. (2017). Comparing the Effectiveness of Two Models of Initial Teacher Education Programmes in Israel: Concurrent vs Consecutive / *European Journal of Teacher Education*. Vol. 40.
- Sazali, A. W., Raduan, C. R., & Suzana Idayu Wati Osman. (January 1, 2012). Defining the Concepts of Technology Transfer: A Literature Analysis. URL: <http://dx.doi.org/10.5539/ibr.v5n1p61>
- Schumaker, J. B. & Deshler, D. D. (1992). Validation of learning strategy interventions for students with LD: Results of a programmatic research effort. In Y. L. Wong (ED.), *Contemporary intervention research in learning disabilities: An international perspective*. New York: Springer-Verlag.
- Shazia Kauser & Ishfaq Majid. Towards Excellence: An Indexed, Refereed & Peer Reviewed Journal of Higher Education. March, 2021. Vol. 13. Issue No 1. pp 372
- SRJIS/BIMONTHLY/Dr Anil Kumar Agnihotri. April-May 2017. Quality In Primary And Secondary Education, Vol 4/21, pp 4878

Susan A. Ambrose, Michael W. Bridges, Michele DiPietro, Marsha C. Lovett & Marie K. Norman. (2010). How Learning Works: Seven Research-Based Principles for Smart Teaching

Terpstra, V., and David, K. (1985). The Cultural Environment of International Business, Cincinnati, OH: Southwestern Publishing Co.

Vlasceanu, L., Grunberg, L., & Parlea, D. (2007). Quality assurance and accreditation: A glossary of basic terms and definitions. Bucharest: UNESCO

Woolgar, S. (1987). Reconstruction Man and Machine: A note on Sociological Critiques of Cognitivism. Cambridge, MA: MIT press.

USING MOBILE APPS FOR PROFICIENCY IN FRENCH AS A FOREIGN LANGUAGE BY NIGERIAN TEACHER-TRAINEES FOR LIFELONG LEARNING

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Abstract

This study examined the use of mobile apps as a lifelong learning tool by Nigerian teacher-trainees to enhance proficiency in French as a foreign language in the new-normal society. Three research questions and two hypotheses guided the study. Descriptive and quasi-experimental research designs were adopted. Using a sample size of all the 151 final year teacher-trainees in the South-West geopolitical zone of Nigeria, a pre-test and a post-test were conducted. A questionnaire was used concurrently for data collection, while a Teacher-Trainee Achievement Test (TAT) was used for the pre-test, and post-test for the treatment and control groups. A stratified sampling technique was adopted to select One hundred and nine (109) teacher-trainees who were taught with the selected mobile apps. Results showed that the use of mobile apps is effective for learning French as a foreign language. The study concluded that proficiency in French language would foster international interactions and promote socio-economic co-operations with Nigerian neighbouring countries. One of the recommendations is that the use of mobile apps should be encouraged and recommended to all Nigerian youths to learn French as a foreign language for enhancing leadership roles in the world of work.

Keywords: Digital society, French as a foreign language, French language proficiency, Life-long learning, Mobile apps

Introduction

The need to embrace mobile apps for social and professional engagements became evident at advent of the COVID-19 pandemic that ravaged the whole world in the year 2020 and still present with its impact this present. The world was compelled to embrace the use of digital tools and platforms for everything that needs to be done. The pandemic has led to a new normal, driving the search for a new way to meet and fulfil human needs. Educational needs is one major aspect affected by this phenomenon, since learning is not static, digital tools are embraced for educational purpose at large. Lessons are now delivered using a hybrid of online platforms and physical classes, as the case requires.

The end product of education is learning, which is a relatively permanent change in behaviour. Learning is a continuum, and a break in it only suggests an extinction of the learner. Once a child is born, learning begins, and communication of feelings and ideas precede this process, this is done ceaselessly for a lifetime (Adetuyi-Olu-Francis et al., 2018). Life is not static, and discovering a new way around emerging issues is constant as long as the world exists. Using mobile apps for learning and interactions is not new in this 21st century. It only becomes prominent due to the current new-normal societal situation orchestrated by the outbreak of the COVID-19 pandemic in the year 2020. The existence

of mobile apps is not new in our world some were developed way back 2005 and many were being developed and upgraded to meet the needs of the day. We have apps like:

- Uber developed in the year 2011 for business purpose
- Instagram for media social,
- Netflix for entertainment and film industry,
- Amazon for online shopping,
- Youtube for videos with its unique features that enable users to create their videos and post them online as well as live streaming,
- Spotify for the world of music,
- Whatsapp for messaging,
- TED for educative conferences and talks, and
- Google classroom”, “Edmodo”, “Edublogs” for classroom interactions; as well as
- “FluentU”, “Duolingo”, “Rosetta Stone”, “Babbel”, “Memrise”, “Busuu” etc. language learning like

According to Android Authority (2009) website information, all these apps have been in existence as far back as 2009, while most mobile apps require a subscription fee, there are very many with free or partially free subscription i.e. having some levels of restrictions, which do not have any negative impact on their effectiveness.

Learning the French language is now important for Nigerian teacher-trainees for its prospect for the millions of youths who have lost their jobs as a result of the pandemic. A communicative competence in the French language is a tool at hand to equip the teacher-trainees with an additional skill to help them stand out among equals. A leader should not be deficient in any aspect of human endeavour; he/she may not be a master or expert in all the fields, but he/she must be versatile. Proficiency in multiple languages will enable a leader to harness diverse opportunities with limited restrictions or barriers; language is a key that opens many doors. Moreover, French language is an active language in the international gatherings, a key that opens doors for international investments and collaborations, especially in the French milieus.

Nigeria being surrounded directly by French-speaking countries (Niger in the North, Chad in the North-East, Cameroon in the East, and Republic of Benin in the West) points to the fact that an average Nigerian citizen needs to be proficient in French language. Based on this, French language is essential for Nigeria as a country to cope among her neighbours. Therefore, it is expected that the Nigerian government should objectively embrace and foster the acquisition of French language at all levels of education and make it one of the criteria for employment in the country, especially in the education sector (Opara et al., 2018). This is why the paper focuses on the need for teacher-trainees to be proficient in French language.

Promoting the French language in Nigeria will enable the teacher-trainees to navigate with ease and cope with their contemporaries all over the world conveniently, especially in the French-speaking countries. More so, considering digitalisation in the global space, learning of languages is no longer limited to what happens in the classroom, thanks to many languages learning mobile apps now available to learners. This new trend of using various language learning apps is equally applicable to the French language learning for acquiring communicative competence in the language. (Opara et al., 2020).

The digital age with the availability of diverse mobile apps (Youtube, Whatsapp, and language learning apps such as Duolingo, MemRise and the like) that now flood the cyberspace makes it less challenging for teacher-trainees to access the French language. According to Computer Network “CNET” (2023), an American media website involved in publishing reviews, news, articles, blogs, podcasts, and videos on technology and consumer electronics globally, there exist eight (8) mostly used and best language mobile apps for learning the French language worldwide. These include Duolingo, MemRise, Busuu etc. Considering the flexibility of mobile apps’ usage in terms of ‘anywhere-anytime’ features, it makes it easy for millions of users to make them their choices. Hand-held devices are now competing largely with other machines and even workforce (human resources) nowadays (Rotter, 2019).

Similarly, Ikonta and Ogonna (2015) opine that computer-assisted-language-learning (CALL) has emerged as a tempting alternative to traditional learning modes, thereby supplementing or replacing direct interactions with self-tutoring. The teacher-trainees should embrace the use of mobile apps for communicative competence in the French language to equip them for life-long leadership roles in the new-normal society. This will serve as a response to the lacuna in the world of work in relation with the versatility in leadership skills expected of teacher-trainees.

The use of mobile devices has rapidly become a norm in developed and developing countries like Nigeria. Nowadays, one will likely see a group of young people with the use of at least one mobile device. This has redirected youths’ needs and aspirations towards digitalisation of all aspects of life. Hand-held (portable) technological tools can be referred to, as all the Information and Communication Technology (ICT) tools nowadays. The ICT tools include cell phones, iPods, iPads, androids, and all mobile gadgets, making it easy for young people to use them to facilitate social interactions and learning purposes (Pachler et al., 2009).

The current global economic situation requires no pity but action from the least citizen to the business tycoons, policymaker, governments of nations and international organisations. The new normal has even orchestrated a wide coverage of clientele for industries using online platforms. Leadership becomes tough for any youth who still lacks behind in this trend of migrating to the ‘cloud’ (online citizenry), which especially points at teacher-trainees who will shape the future of the nation. Since the French language is one of the languages widely used for international communication, it necessitates the need for the teacher-trainees to acquire communicative competence in the French language to favourably compete in the world of work (Opara et al., 2017)

Statement of the Problem

The Nigerian teacher-trainees lack the awareness that mobile apps for acquiring communicative competence in French flood the cyberspace and they can effectively learn the French language. They are yet to realise that proficiency and competence in the French language is an added advantage for leadership roles in the world of work, especially in the new-normal society where digitalization is the order of the day. Therefore, there is the need to examine mobile apps’ use for acquiring communicative competence in French language by Nigerian teacher-trainees for life-long leadership roles in the new-normal society.

Specifically, the study’s objectives are to:

1. determine the awareness of Nigerian teacher-trainees towards mobile apps for acquiring communicative competence in French language;
2. examine the effectiveness of the use of mobile apps for acquiring communicative competence in French language on Nigerian teacher-trainees for leadership roles; and
3. examine how accessible are the mobile apps for learning French language are to the Nigerian teacher-trainees.

The following Research Questions guided the study. They are stated below:

1. What is the level of awareness of Nigerian teacher-trainees of mobile apps for acquiring communicative competence of French?
2. What is the effect of mobile use on the communicative competence of Nigerian teacher-trainees before and after use?
3. How accessible to the teacher-trainees is the internet connection to facilitate the use of mobile apps for enhancing communicative competence in French language in the tertiary institutions under study?

Two hypotheses guided this study:

1. There is no significant difference in the awareness level of teacher-trainees involved in this study on the use of the selected mobile apps for enhancing communicative competence in French language.
2. There is no significant effect of the use of the selected mobile apps on the communicative competence of teacher-trainees of the French language after using the mobile apps.

Research Methodology

A convergent mixed method was adopted to collect data for quantitative and qualitative analysis. Descriptive and quasi-experimental research designs were adopted. All the one hundred and fifty-one (151) final year teacher-trainees of French as a foreign language in South-West Nigerian universities were selected using the census sampling technique. A questionnaire was used concurrently for data collection, while a Teacher-Trainee Achievement Test (TAT) was used for the pre-test, and post-test for the treatment and control groups. A stratified sampling technique was adopted to select One hundred and nine (109) teacher-trainees who were taught with the selected mobile apps. Three research questions were answered using descriptive statistics. Independent t-test and Analysis of Co-variance (ANCOVA) were used to test the two hypotheses using the Statistical Package for Social Science (SPSS 21.0), at 0.05 level of significance.

Table 1:The actual names of institutions involved in this study

S/N	INSTITUTIONS	CODE	NUMBER OF TEACHER-TRAINEES
1.	Ekiti State University (EKSU)	UNIVERSITY A	5
2.	Lagos State University (LASU)	UNIVERSITY B	7
3.	Obafemi Awolowo University (OAU)	UNIVERSITY C	3
4.	Olabisi Onabanjo University (OOU)	UNIVERSITY D	6
5.	Tai Solanrin University of Education (TASUED)	UNIVERSITY E	96
6.	University of Ibadan (UNIBADAN)	UNIVERSITY F	9
7.	University of Lagos (UNILAG)	UNIVERSITY G	25
	Total		151

Source: Field Work, 2019

For this study, a census sampling technique was adopted, because the number of teacher-trainees (Education French Students) is generally low. Also, not all public universities offer French in their Faculties of Education. And the focus of the study is on only the final year students of French on faculties of education in Nigerian public universities. All the one hundred and fifty-one (151) final year teacher-trainees from all the public universities in South-west Nigeria offering French at the undergraduate level consisted the sample for the study. This is because the final year students are very close to becoming certified teachers.

Results and Discussion

The results revealed that most teacher-trainees were not aware of the language learning mobile apps for learning and French and it was also revealed that the use of mobile apps for learning French language has a positive effect on the communicative competence of teacher-trainees as shown in the analysis of the hypotheses below:

Hypothesis One

HO₁: There is no significant difference in the awareness level of teacher-trainees involved in this study on the use of some selected mobile apps for enhancing communicative competence in French language.

Analysis of Covariance for hypothesis one

Table 2a: Mean Table: Teacher-trainees' awareness of the use of selected mobile apps for enhancing communicative competence in French language

Groups	Mean	Std. Error	Mean Gain	Order of Awareness
UNIVERSITY G	2.93	.456	0.43	1 st
UNIVERSITY A	2.88	.733	0.38	2 nd
UNIVERSITY F	2.75	.343	0.25	3 rd
UNIVERSITY D	2.73	.372	0.23	4 th
UNIVERSITY E	2.62	.431	0.12	5 th
UNIVERSITY C	2.53	.252	0.03	6 th
UNIVERSITY B	2.36	.305	-0.14	7 th

Source: Field Survey, 2020

Table 2a shows that out of the 4 points obtainable from the Likert Scale measuring the awareness of teacher-trainees involved in this study on the use of the selected mobile apps for enhancing communicative competence in French language, the teacher-trainees from University G had 2.93 (0.43 greater than the midpoint); University A had a mean score of 2.88 (0.38 greater than the midpoint); university F had 2.75 (0.25 greater than the midpoint); University D had 2.73 (0.23 greater than the midpoint); University E had 2.62 (0.12 greater than the midpoint); University C had 2.53 (0.03 greater than the midpoint); while University B had 2.36 (0.14 less than the midpoint).

This indicates that the teacher-trainees from University G, University A, University F, University D, University E, and University C, had mean gains from the midpoint (2.5), while University B has no mean gain from the midpoint. This reveals that there are some differences in their awareness level as teacher-trainees involved in this study on the use of mobile apps for enhancing communicative competence in French language. The table shows further that the most aware institution was University G, followed by University A, University F, University D, University E, University C, and lastly University B. The significance of the difference is examined in Table 2b.

Table 2b: Tests of Between-Subjects Effects:

Teacher-trainees' awareness of the use of selected mobile apps for enhancing communicative competence in French language

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	3.243 ^a	6	.540	2.869	.011	.107
Intercept	328.160	1	328.160	1742.17	.000	.924
Group <i>Between</i>	3.243	6	.540	2.869	.011	.107
Error <i>Within</i>	27.125	144	1.88			
Total	1028.890	151				
Corrected Total	30.368	150				

a. R Squared = .107 (Adjusted R Squared = .070)

The analysis of data from table 2b shows that there was a significant difference in mean scores [$F(6,144) = 1.88, p = 0.011$] between the groups. The partial Eta Squared value indicated that the effect size is small (0.107). The R-Squared value is also used to describe how much of the variance in the dependent variable is explained by the independent variable (7.0%).

Hence, the null hypothesis that states that "there is no significant difference in the awareness level of teacher-trainees involved in this study on the use of mobile apps for enhancing communicative competence in French language" is rejected. In contrast, its alternative that states that "there is a significant difference in the awareness level of teacher-trainees involved in this study on the use of mobile apps for enhancing communicative competence in French language" is therefore accepted.

Independent Samples t-test for hypothesis three

Table 3a: Difference between the pre-test and post-test scores in University B

Group	N	Mean	STD	MD	Df	T	p-val.	Remark
Pre-test	Treatment	3	11.32	1.22	5	2.114	.214	Not Significant
	Control	4	11.74	1.11				
Post-test	Treatment	3	25.23	1.22	5	4.331	.005	Significant
	Control	4	16.02	1.32				

Significant at .05 level

Independent samples t-test analysis was conducted to determine if any significant difference existed in the communicative competence of those teacher-trainees of French language in the treatment group (who were taught using mobile apps) and those in the control group (who were taught using the conventional method). This was done by comparing their performances in the Teacher-trainees' Achievement Tests (TAT), with a total obtainable mark of 35. For the Pre-test, Table 3a showed a statistically insignificant

difference between the Treatment group (N = 3, Mean = 11.32, Standard Deviation = 1.221; Df = 5) and the Control group (N = 4, Mean = 11.74, Standard Deviation = 1.113; Df = 5), with a mean difference of 0.42 between the Treatment Group and Control Group. This indicates that the control group performed 3.6% better than the treatment group in the Pre-test. Since $t = 2.114$, $p.val > 0.05$. It shows an insignificant difference in the performances of both groups. This reveals that the students' communicative competences before the intervention package were not significantly different, irrespective of their group; treatment or control.

For the Post-test, however, Table 3a showed a statistically significant difference between the communicative competence of the treatment group (N = 3, Mean = 25.23, Standard Deviation = 1.215; Df = 5) and the communicative competence of the Control Group (N = 4, Mean = 16.02, Standard Deviation = 1.321; Df = 5), with a mean difference of 11.21 between the treatment group and control group. This indicates that the treatment group performed 44.4% better than the control group in the Post-test. Since $t=4.331$, $p < 0.05$. It shows a significant difference in the communicative competence of those teacher-trainees of French language in the treatment group and those in the control group. Hence, the researcher concludes that there is a significant effect of the use of mobile apps for learning French language on the communicative competence of teacher-trainees of the French language in University B.

Table 3b: Difference between the pre-test and post-test scores in University D

	Group	N	Mean	STD	MD	Df	T	p-val.	Remark
Pre-test	Treatment	3	14.82	1.22	0.70	4	3.332	.171	Not Significant
	Control	3	14.12	2.41					
Post-test	Treatment	3	31.01	1.32	14.62	4	4.533	.001	Significant
	Control	3	16.39	2.11					

Significant at .05 level

For the Pre-test, Table 3b showed a statistically insignificant difference between the treatment group (N = 3, Mean = 14.82, Standard Deviation = 1.222; Df = 4) and the control group (N = 3, Mean = 14.12, Standard Deviation = 1.222; Df = 4), a mean difference of 0.70 between the treatment group and control group indicates that the treatment group performed 4.7% better than the control group in the Pre-test, since $t = 3.332$, $p.val > 0.05$ shows an insignificant difference in the performances of both groups. This indicates that the students' communicative competences before the intervention package were not significantly different, irrespective of their group; treatment or control.

For the Post-test, however, Table 3b shows a statistically significant difference between the communicative competence of the treatment group (N = 3, Mean = 30.01, Standard Deviation = 1.322; Df = 4) and the communicative competence of the control group (N = 3, Mean = 17.39, Standard Deviation = 2.113; Df = 4), with a mean difference of 14.62 between the Treatment Group and Control Group. This indicates that the Treatment Group performed 47.1% better than the control group in the Post-test. Since $t = 4.533$, $p < 0.05$. It shows a significant difference in the communicative competence of those teacher-

trainees of French language in the treatment group and those in the control group. Hence, it is concluded that there is a significant effect of the use of mobile apps for learning French language on the communicative competence of teacher-trainees of the French language in University D.

Table 3c: Difference between the pre-test and post-test scores in University E

	Group	N	Mean	STD	MD	Df	T	p-val.	Remark
Pre-test	Treatment	47	13.21	2.131	0.90	94	2.135	.136	Not Significant
	Control	49	14.11	1.421					
Post-test	Treatment	45	27.91	2.321	12.01	92	6.214	.003	Significant
	Control	49	15.90	2.452					

Significant at .05 level

For the Pre-test, Table 3c shows a statistically insignificant difference between the treatment group (N = 47, Mean = 13.21, Standard Deviation = 2.321; Df = 94) and the control group (N = 49, Mean = 14.11, Standard Deviation = 1.421; Df = 94), with a mean difference of 0.90 between the Treatment Group and Control Group. This indicates that the Treatment Group performed 6.4% better than the control group in the Pre-test. Since $t = 2.135$, $p\text{-val} > 0.05$. It shows an insignificant difference in the performances of both groups. This indicates that the students' communicative competences before the intervention package were not significantly different, irrespective of their group: treatment or control.

For the Post-test, however, Table 3c shows a statistically significant difference between the communicative competence of the treatment group (N = 45, Mean = 27.91, Standard Deviation = 2.321; Df = 92) and the communicative competence of the control group (N = 49, Mean = 15.90, Standard Deviation = 2.452; Df = 92), with a mean difference of 12.01 between the Treatment Group and Control Group. This indicates that the Treatment Group performed 43.0% better than the control group in the Post-test. Since $t = 6.214$, $p < 0.05$. It shows a significant difference in the communicative competence of those teacher-trainees of French language in the treatment group and those in the control group. Hence, the researcher concluded that there is a significant effect of the use of mobile apps for learning French language on the communicative competence of teacher-trainees of the French language in University E.

Analysis of Covariance (ANCOVA) for hypothesis three

Table 3d.: Mean Table:

Communicative competence of teacher-trainees of the French language in the three selected tertiary institutions in the order of performance

Groups	Mean	Std. Error	Mean Gain	Order of Performance
UNIVERSITY D(Tre)	31.01	.343	13.51	1 st
UNIVERSITY D(Con)	16.39	.372	-1.11	
UNIVERSITY E(Tre)	27.91	.431	10.41	2 nd
UNIVERSITY E(Con)	15.90	.252	-1.60	
UNIVERSITY B(Tre)	25.23	.456	7.73	3 rd
UNIVERSITY B(Con)	16.02	.733	-1.48	

Source: Field Survey, 2020

Table 3d shows that out of the 35 points obtainable from the achievement test measuring the communicative competence of teacher-trainees of the French language from the three selected tertiary institutions, the control groups across the 3 universities scored below the midpoint (17.5) as they all had negative mean gains of -1.11, -1.60, and -1.48 for Universities D, E, and B respectively. With respect to the performances of their treatment groups, however, the teacher-trainees from University D had 31.01 (13.51 greater than the midpoint); followed by University E with a mean score of 27.91 (10.41 greater than the midpoint); and lastly, University B with 25.23 (7.73 greater than the midpoint). This indicates that there are some differences in their performance levels; however, the significance of the difference is examined in Table 3e.

Table 3e: Tests of Between-Subjects Effects:

Effect of the use of selected mobile apps on the communicative competence of teacher-trainees of the French language

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1545.660 ^a	5	386.415	58.496	.001	.734
Intercept	326.239	1	326.239	49.387	.001	.367
Group ^{Between}	1359.569	5	453.190	68.604	.002	.708
Error ^{Within}	561.496	103	6.606			
Total	6744.000	109				
Corrected Total	2107.156	108				

a. R Squared = .734 (Adjusted R Squared = .721)

The analysis of data from table 3e shows that there was a significant difference in mean scores [$F(5,103) = 6.606, p = 0.002$] between the groups. It can be seen that the effect size is large (0.708). This value indicates that 70.8% of the variance in the communicative competence of teacher-trainees of the French language is explained by the use of selected

mobile apps. The R-Squared value is also used to describe how much of the change in the dependent variable is explained by the independent variable (73.4%).

Hence, the null hypothesis that states that "there is no significant effect of the use of mobile apps for learning French language on the communicative competence of teacher-trainees of the French language" is rejected. Its alternative which states that "there is a significant effect of the use of mobile apps for learning French language on the communicative competence of teacher-trainees of the French language" is accepted.

Majority of the teacher-trainees disagreed with items 1-4 (negative statements) on the effect the use of mobile apps for learning French language has on the communicative competence of teacher-trainees of French language and agreed with item 5, which is a positive statement. Hence, the teacher-trainees thought that the use of mobile apps for learning French language did not cause distractions for them (Mean = 2.08; Standard Deviation = 0.213). Mobile apps cannot be used for learning vocabulary registers in French language (Mean = 1.84; Standard Deviation = 0.234). Mobile apps cannot be used to learn orthography in French language (Mean = 2.014; Standard Deviation = 0.311). They claimed that there was a positive difference in their communicative competence after the use of mobile apps to learn French language (Mean = 2.10; Standard Deviation = 0.321). The use of mobile apps also helped them to speak French language outside of the classroom (Mean = 3.04; Standard Deviation = 0.923).

Accessibility of Internet Connection to Teacher-trainees for Facilitating the Use of Mobile Applications to Enhance Communicative Competence in the Tertiary Institutions under Study

S/N	ITEM	SA (%)	A (%)	D (%)	SD (%)	Mean	Std. Dev.
1.	Teacher-trainees have access to internet connection via the use of Wi-Fi on campus	15 (9.9)	44 (29.1)	63 (41.7)	29 (19.2)	2.30	.893
2.	Teacher-trainees have access internet connection via the use of Wi-Fi on campus	10 (6.6)	33 (21.9)	80 (53.0)	28 (18.5)	2.17	.804
3.	Only staff members have access to internet connection via the use of Wi-Fi in my institution.	11 (7.3)	36 (23.8)	75 (49.7)	29 (19.2)	2.19	.830
4.	Only staff members have access to the internet connection through Ethernet wire/cable in my institution	47 (31.1)	92 (60.9)	8 (5.3)	4 (2.6)	3.21	.656
5	Internet connection available in my school helps me make use of mobile applications to enhance communicative competence in French while in the school premises.	18 (11.9)	62 (41.1)	59 (39.1)	12 (7.9)	2.57	.804
6	The use of hardware instructional materials like textbooks, dictionaries etc. is preferred to using mobile applications for learning French language because of the high cost of internet connection.	28 (18.5)	82 (54.3)	35 (23.2)	6 (4.0)	2.87	.751
7	Academic performance is enhanced when there is an internet connection for the use of mobile applications.	44 (29.1)	95 (62.9)	7 (4.6)	5 (3.3)	3.18	.664
8	Internet connection facilitates the use of mobile applications for enhancing communicative competence in French	47 (31.1)	83 (55.0)	15 (9.9)	6 (4.0)	3.13	.745
	Average (%)	28 (18.2)	66 (43.6)	43 (28.3)	15 (9.8)	2.70	0.768

Strongly Agree (SA) = 3.50 & above; Agree (A) = 2.50-3.49; Disagree (D) = 1.50 -2.49; and Strongly Disagree (SD) = below 1.50

The result of the analysis in Table 7 shows that most of the mean scores of the items 1-8 in the table are greater than 2.50. This implies that majority of the teacher-trainees disagreed with items 1-3 (positive statements) on how accessible the internet connection is for

enhancing the learning of French language in their various institutions. They agreed with items 4-8, (positive statements).

Based on this, most of the teacher-trainees were of the opinion that they do not have access to internet connection via the use of Wi-Fi in their institution (Mean = 2.30; Standard Deviation = 0.893). Staff members do not have access to internet connection via the use of Wi-Fi in the institution (Mean = 2.17; Standard Deviation = 0.804). However, only staff members have access to the internet connection through Ethernet wire/cable in their institutions (Mean = 2.19; Standard Deviation = 0.830). They also believed that the availability of Internet connection would help them make use of mobile applications for enhancing communicative competence in French in their institutions (Mean = 3.21; Standard Deviation = 0.656).

They also preferred to use hardware instructional materials such as textbooks, dictionaries, etc., compared to using mobile applications for learning French language because of the cost of internet connection (Mean=2.57; Standard Deviation=0.804). They performed better academically when they were able to connect to the internet to use mobile applications for learning French language (Mean = 2.87; Standard Deviation = 0.751); Internet connection facilitates the use of mobile applications for enhancing communicative competence in French (Mean = 3.18; Standard Deviation = 0.664); and that the availability of internet connection for the use of mobile applications for enhancing communicative competence in French language would motivate them to learn French (Mean = 3.13; Standard Deviation = 0.745). The response to research question three is, therefore, that the internet connection has a positive effect on the use of mobile applications for enhancing communicative competence in French language in the tertiary institutions under study. It is therefore deduced that majority of the teacher-trainees are unable to access internet connection via free Wi-Fi in their various institutions because the schools did not make provision for internet connection either as a result of lack of adequate funding or as a result of lack of information about its importance.

Discussion of Findings

The findings from this study revealed that the use of mobile apps for learning French language is significantly effective on the Nigerian teacher-trainees' communicative competence in French language. Also, it is capable of being used as a tool to equip them for life-long leadership roles which will enhance a favourable competition in the world of works. The inferential statistic showed a significant difference in the communicative competence of Nigerian teacher-trainees sampled for the study before and after the use of the selected mobile apps for learning French language. However, results showed that there are some differences in their awareness as teacher-trainees from different tertiary institutions on the use of mobile apps for acquiring communicative competence in French language, indicating that, where some were fully aware of the mobile apps and use them sparingly, others were not aware of them and as such were not using them. It was also revealed that the teacher-trainees do not have access to the internet connection in the institutions under study. A few of them who have access to internet connection were via self-sponsorship because their institutions do not provide Wi-Fi or other forms of internet connection to enable the students to facilitate the use of mobile applications for enhancing communicative competence in French.

Conclusion and Recommendations

The findings in this study revealed that many teacher-trainees are not aware of the diverse mobile apps that can enable them to acquire communicative competence in French. Where the Tech world keeps developing diverse apps, unawareness of the apps is a hindrance to the full use of these apps. It was also found that the efficacy of the use of mobile apps for learning French as a tool for Nigerian teacher-trainees in the first instance and all Nigerian youths for the learning of French language using mobile apps that are all over the cyberspace having unlimited features for learners at all levels. The various mobile apps have different easily manipulated features and are 'self-use' enabled. Most of these mobile apps are free, while some require a token for a subscription. It is amazing to note that the subscription fee does not imply that all the free version features will be less than those in the paid version. The study also showed that some teacher-trainees in the institutions under study already embraced the use of mobile apps for learning French to empower them for leadership roles, while others do not, owing to lack of internet connection.

There is no debating the immense opportunities that await Nigerian youths, especially Nigerian teacher-trainees who have the communicative competence in the French language. Considering the present new-normal global situation as a result of the Covid-19, millions of youths have lost their jobs worldwide and hundreds of thousands in Nigeria in particular. Employers now specifically seek employees who can follow the new-normal trend, which includes the use of online platforms and the use of mobile apps for diverse activities. They equally look out for a versatile workforce which can operate at local and international levels; especially, personnel who can conveniently interact with our neighbouring francophone countries, and are proficient in their language, which is French. Therefore, this study established the effectiveness of the use of mobile apps for learning the French language on the communicative competence of Nigerian teacher-trainees as a tool to equip them for life-long leadership roles. Based on the findings, the following recommendations were proposed:

1. The learning of French should be made compulsory at the tertiary institution as a university-wide course, to equip the Nigerian youth with the communicative competence in the French language.
2. As those expected to become autonomous teachers, the Nigerian teacher-trainees should be encouraged to use mobile apps for learning the French language to enhance their leadership roles in the world of work.
3. The use of mobile apps should be introduced in the tertiary institution curriculum to enable our graduates' versatility and be internationally fit for job search.
4. Further research on content analysis of various mobile apps for learning the French language should be carried out to further establish findings on mobile apps for learning French.
5. More awareness should be created to use mobile apps among young Nigerian citizens for versatility in the global environment.

REFERENCES

Adetuyi-Olu-Francis, O. E. & Opara, C. C. (2018). Life-Long education for sustainable economy in Africa: The role of French language education. *Journal of Teaching and Education*, 8(2), 379 - 390.

- Ikonta, N. R. & Ugonna, N. C. (2015). The impact of Rosetta Stone computer-assisted language learning (CALL) software on English as a second language students' proficiency in English language. *Anglo-American: International Journal of Arts and Sciences (IJAS)*, 8 (1), 349-361.
- Opara, C. C. and Adetuyi-Olu-Francis, O. E. (2017). French language education and socio economic co-operation in West African. *EUREKA, A Journal of Humanistic Studies; A Special Issue on Francophonie and Peace Discourse*, UNILAG Press. 3:3 4:681-704
- Opara, C. C. & Adetuyi-Olu-Francis, O. E. (2020). The Perceptions of Undergraduate Students Towards the Use of Mobile Applications in Learning French Language for Sustainable National Development. *A Special Edition of the Official Journal of International Association of Language Educators (JIALE)*. 1 (1) 207- 215
- Opara, C. C., Adetuyi-Olu-Francis, O. E. & Osedeme A.V.(2018). "The Implementation of French Language Policy in a Multilingual African Society: Nigeria as a Case Study". *Humanities and Social Sciences Review*, ISSN: 2165 6258: (02):379–390.
- Pachler, N., Cook, J., & Bradley, C. (2009). "I don't really see it": Whither case-based approaches to understanding off-site and on-campus mobile learning? In G. Vavoula, N. Pachler & A. Kukulska-Hulme (Eds.) *Researching mobile learning*. Bern: Peter Lang, (77--96).
- Rotter, J. (2019) Best language apps for learning how to speak French in 2019 (2020, July 12). <https://download.cnet.com/news/best-language-apps-for-learning-how-to-speak-french-in-2019/>

POSTGRADUATE COLLEGE STAFF DIGITAL COMPETENCE AS A PREDICTOR OF LECTURERS' JOB SATISFACTION FOR SUSTAINABLE EDUCATION

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Abstract

Lecturers' job satisfaction is germane to the growth of an organisation. From experience, lecturers derive satisfaction when their desires are met. Despite that, some lecturers are not delighted. Researchers have worked on some factors, but much work has not been done on postgraduate college digital competency. Thus, a bid to determine lecturers' job satisfaction led to this study. The study employed a descriptive survey research design, as well as Total Population Sampling Technique (TPST) on a population of one hundred and seventy-one (171) respondents but one hundred and twenty (120) copies of the instruments were retrieved. With a quantitative research approach, the study's content was used as the basis for generating items for the instruments which were used to give answers to the research questions raised and the hypothesis poised and having a reliability score of 0.907. Sections A and B of the structured questionnaires were measured using frequency, mean, standard deviation, and percentage. Pearson Product Moment Correlation (PPMC) was used to determine the significant relationship between the independent variable and the dependent variable at a 0.05 level of significance. Findings showed that lecturers at Lead City University Postgraduate College, Ibadan are very satisfied with their jobs. There is also a positive relationship ($r = 0.612$) between postgraduate college staff digital competence and lecturers' job satisfaction. It is suggested that the postgraduate college staff should identify and develop themselves in the use of specific application software to effectively carry out their tasks towards lecturers' job satisfaction in the institution.

Keywords: Postgraduate college, Lecturers' job satisfaction, staff digital competency

Introduction

Education is the process of purposeful change in a person's life. It is an intentional action that considers how to convey knowledge during the teaching and learning process in classrooms or environments that are like schools (Ipfling et al., 2022). It is a structured, stage-by-stage method for passing down or imparting to the next generation beneficial social experience (Aslanbek, 2017). Teachers are experts in the process of teaching and learning, imparting knowledge to the unknowledgeable. He or she is a person who has learned the teaching methods for a certain subject area and is, therefore, qualified to teach in any given institution (Obadimeji & Oredein, 2022).

As stakeholders in education, lecturers are employed by institutions to contribute their professionalism and abilities to the processes of teaching and learning. Lecturers' job

satisfaction, which is the inward feeling that lecturers have toward carrying out their duties as lecturers in the institution, should be prioritized for sustainable education. It is important to consider their job satisfaction (Shyhrul et al., 2021). In this context, lecturers' job satisfaction may be divided into three categories: job security, job incentive, and method of dealing with complaints. Job security for lecturers refers to the ability of an employee to know that his or her job will not be terminated at any point (Miles, 2022).

Lecturers' job incentives could be monetary or non-monetary. This is done to provide an employee with job satisfaction to increase productivity, boost morale, and attract and retain talent (Basu, 1966). A satisfied lecturer rarely complains to his or her superior. A high percentage of complaints may indicate that some lecturers are dissatisfied with their job. If the management fails to use the right method to handle the situation appropriately, the organisation will be unable to meet its objectives. Lead City offers postgraduate degrees. Both administrative employees and lecturers who are involved in the teaching and learning processes are employed by the institution.

The admission officer is a member of the admission team who provides feedback to the postgraduate college's superior (Provost). The following duties are carried out by the admissions officer: act as the focal point for the postgraduate university ties with secondary schools, junior and community colleges, and other institutions of higher learning among all others (The University of Texas, 2022). The office of the Registrar carries out the following functions among which are: maintains the official invention of courses and maintains records and reports regarding class sizes by departments and subject (The University of Texas, 2022).

The Examinations and Records Units is a division of the registry division. The records and exams of the students are a priority in this unit. Other duties include the distribution of notices of results, letters attesting to grades and academic records, the release of degree certificates, the organisation of matriculation and convocation ceremonies, the verification of degree results, and the upkeep of student files and records. The Bursary Unit. This is a part of the postgraduate College as well. She oversees allocating money to the university in a way that is both effective and efficient. (The University of Texas, 2022).

Digital competence is the ability to use or incorporate application software in various tasks for a specific function, efficiency and to increase productivity. It is the set of knowledge and attitudes (which include abilities, strategies, values, and awareness) that are necessary when using digital application software to complete tasks, solve problems and communicate among all others (Iiomaki, Paavola, Lakkala, & Kantosalo, 2014). Word Processing Software (MS Office, PowerPoint, and Excel, among others), graphic software (Adobe Photoshop), presentation software (PowerPoint), spreadsheet software (Excel, Google sheets), database (Oracle), web browsers (Mozilla Firefox, Google), Customer Relationship Management (CRM) application software, WhatsApp, and Skype, among others, are examples of digital applications (Henderson, 2020). Based on their awareness, adaptability, and self-direction, postgraduate college staff members can be assessed for their digital competence (Canina & Orero-Blat, 2021).

This paper title could be explained further using the Job Characteristics Model (JCM), which was proposed or developed by Hackman & Oldham (1980). It is a method of job employment enrichment. It grounds its assumption on five primary employment aspects that would contribute to individual employee job satisfaction. It also believes that the task itself is the key to motivation. This simply indicates that in this digital era, the digital competency of college staff is the key to lecturer job satisfaction. This theory essentially provides five key traits that can be predicted to help a lecturer's psychological state and job outcome. They are as follows: task significance (relevance), skill diversity, autonomy, task identity, and feedback. According to the theory, lecturers' job satisfaction encourages lecturers to continue performing effectively (Hackman & Oldham, 2009).

During the last concluded exam in Lead City University at the Postgraduate College, some of the lectures were filled with various thoughts about their payment, students' missing results, and departmental Theses guides among others. All these would not have arisen and affected lecturers' job satisfaction if there are well-equipped applications for postgraduate college staff digital competency.

Statement of the Problem

Lecturer's job satisfaction is very critical to the growth of any organization and cannot be overstated. Although, lecturers derive satisfaction when their desires are met such as prompt payment of lecturers' salary or allowance and conflict resolution management among others. Yet, some lecturers are not delighted. Other factors such as postgraduate college staff digital competency would also improve lecturers' job satisfaction. The administrative staff of some tertiary institutions in the developed world like the USA work digitally for effectiveness and efficiency in their digital competency. The hybrid meeting has been incorporated into Lead City University, Ibadan through the combination of physical and virtual meetings (the use of various applications: WhatsApp and Zoom among all others for academic and other purposes) (Oredein & Obadimeji, 2022). The use of these applications and the desire for self-development in job delivery services of the postgraduate staff brought about the staff college's digital competency. Although, researchers have tried to improve the organization through various studies such as lecturer's job satisfaction, and lecturer's job performance, much work has not been done on digital competency of the postgraduate college staff. To this end, this study will investigate the relationship between postgraduate college staff digital competence and lecturer's job satisfaction for sustainable Education at Lead City University, Ibadan.

Aim and Objectives of the Study

The study aims to investigate the relationship between postgraduate college staff digital competence and lecturer's job satisfaction for sustainable education at Lead City University, Ibadan. The specific objectives are to:

- i. identify the level of lecturer's, job satisfaction in Lead City University postgraduate college, Ibadan for sustainable education;
- ii. determine the type of digital applications mostly used in each unit of the postgraduate college in Lead City University, Ibadan for sustainable education;
- iii. measure the level of digital competency in each unit of Lead City University postgraduate college, Ibadan on lecturers' job satisfaction for sustainable education; and

- iv. ascertain the relationship between digital competency among Lead City University postgraduate college staff and lecturers' job satisfaction for sustainable education.

Research Questions

Considering the above, this study seeks to investigate the following questions raised:

- i. What is the level of lecturers' job satisfaction in Lead City University postgraduate college, Ibadan for sustainable education?
- ii. What type of digital applications is/are mostly used in each unit of the postgraduate college in Lead City University, Ibadan for sustainable education?
- iii. What is the level of digital competency in each unit of Lead City University postgraduate college, Ibadan on lecturers' job satisfaction for sustainable education?

Hypothesis

This study seeks to investigate the relationship between the independent and dependent variables.

H₀₁: There will be no significant relationship between digital competency among Lead City University Postgraduate College staff and lecturers' job satisfaction for sustainable education.

Methodology

Research Design

This study used a descriptive survey research design, aimed at collecting data on and describing systematically, the characteristics, features, or facts about lecturers' job satisfaction for sustainable education in Postgraduate College Lead City University, Ibadan.

Population, Sample and Sampling Technique

Lead City University Postgraduate College is made up of seven (7) faculties and nineteen (19) departments, with a total of one hundred and seventy-one (171) lecturers. Due to the fewer population, the total population sampling technique was used to investigate the entire population that has a specific set of characteristics. As a result, the sample unit is the same as the population. One hundred and twenty (120) copies of the lecturers' instrument were retrieved (70%)

Procedure for Data Collection

A quantitative research approach was used to elicit data from the respondents. The quantitative research approach was used to observe situations that affect lecturers' job performance at the Postgraduate College in Lead City University and to make better decisions towards improving lecturers' job performance which would invariably improve students' academic performance in the institution. Two self-structured questionnaires called the lecturers' questionnaire (LQ) and the postgraduate questionnaire (PGQ) were created. Section B of LQ and the entire PGQ were used to provide answers to the research questions and only section C of LQ was used to show if the study's stated hypothesis is correct or incorrect. Items from the instruments were generated from the study's content. The instrument generated a good reliability score of 0.907 which consistently reflects the

construct (Postgraduate College staff digital competence and Lecturer's job satisfaction) it is measured by giving the same score. The questionnaires (LQ and PGQ) were also subjected to both face and content validity. The LQ comprised three sections: A, B, and C which were used among lecturers servicing the postgraduate college. The respondents supplied their biographical details, including their sex, educational background, and years of experience, among other things, in Section A along with the demographic data. Section B contained items from questions on a Likert-type scale which was extrapolated from the content to address the research questions raised. Section C contained fixed items which were used to determine the acceptance or rejection of the hypothesis. Similarly, the postgraduate college staff questionnaire (PGQ) was used among the postgraduate college staff which comprised three sections: A, B and C. The respondents supplied their biographical details, including their sex, educational background, and years of experience, among other things, in Section A along with the demographic data. Sections B and C contained items from questions on a Likert-type scale which were extrapolated from the content to address the research questions raised.

Ethical Consideration

Ethical guidelines relating to data collection, analysis and interpretation of research as specified by Lead City University were strictly adhered to with the view of enhancing the credibility, validity, and reliability of the study.

Analysis of Data

Descriptive statistics (frequency, mean, standard deviation, graph and percentage) were employed to analyse items contained in sections A and B of the structured questionnaires. Pearson Product Moment Correlation was employed to determine the significant relationship between the independent variable on the dependent variable at a 5% level of significance.

Results

This section shows the results and findings of both research questions and the hypothesis of this study. Questionnaires were administered to the respondents (Lecturers servicing Postgraduate College, Lead City university and the postgraduate college staff) to elicit information and to establish facts and answers to the research questions raised and the hypothesis poised.

Presentation of Research Questions

Research Question 1: What is the level of lecturers' job satisfaction in Lead City university postgraduate college, Ibadan, for sustainable education?

Table 1: The Levels of Lecturers' Job Satisfaction for Sustainable Education

S/N	Items	Extremely	Very	Moderately	Slightly	Not True	Mean	SD
		True	True	True	True			
		Freq (%)	Freq (%)	Freq (%)	Freq (%)	Freq (%)		
1.	I have the feeling that my job is safe at any time in the institution	44 (36.7%)	30 (25.0)	28 (23.3%)	4 (3.3%)	14 (11.7%)	3.72	1.316
2.	I have no fear of job loss during economic downfall in the institution	34 (28.3%)	42 (35.0)	28 (23.3%)	8 (6.7%)	8 (6.7%)	3.72	1.146
3.	I have the opportunity to develop my career path in the institution	38 (31.7%)	60 (50.0)	14 (11.7%)	4 (3.3%)	4 (3.3%)	4.03	0.934
4.	I have the feeling that the discount I receive in my tuition fee payment with the institution is enough	6 (5.0%)	44 (36.7%)	40 (33.3%)	18 (15.0%)	12 (10.0%)	3.12	1.055
5.	I have a retirement plan with the institution	8 (6.7%)	8 (6.7%)	12 (10.0%)	14 (11.7%)	78 (65.0%)	1.78	1.258
6.	I receive full attention on my complaints from the institution	26 (21.7%)	28 (23.3%)	42 (35.0%)	22 (18.3%)	2 (1.7%)	3.45	1.076
7.	The management has a conflict resolution mechanism which is clearly understood by all	6 (5.0%)	34 (28.3%)	48 (40.0%)	26 (21.7%)	6 (5.0%)	3.07	0.950
11.	Each complaint made is being handled on time by the management	16 (13.3%)	28 (23.3%)	62 (51.7%)	12 (10.0%)	2 (1.7%)	3.37	0.898
12.	The management resolves all my complaints	16 (13.3%)	26 (21.7%)	54 (45.0%)	16 (13.3%)	8 (6.7%)	3.22	1.055
Weighted Mean							3.25	

Source: Fieldwork, 2022

Decision Rule: Weighted Mean < 3.0 means **Low**, 3.0 means **Moderate**, > 3.00 means **High**

Table 1 indicates the level of lecturers' job satisfaction in the postgraduate college. It reveals that it is extremely true that lecturers have feelings that their job is safe at any time in the institution with a high percentage of 36.7%. This implies that there is job security in the institution. This is followed that it is also extremely true that lecturers could develop their career paths in the institution. The least here has a tie that lecturers have the feeling that the discount they receive in their tuition fee payment with the institution is enough and that the management has a conflict resolution mechanism which is clearly understood by all, having a percentage of 5.0% each. This could be a result of having fewer lecturers who

still develop their careers in the institution. This also means that some lecturers are not satisfied with how the management resolves conflict which is inevitable in the organisation. From the table, the weighted mean of 3.25 is greater than the Likert mean of 2.5. That is calculated weighted mean > Likert mean. Even though the management has a conflict resolution mechanism which is clearly understood by all with the least percentage, lecturers' job satisfaction in Lead City University postgraduate College, Ibadan for sustainable education is high.

Research Question 2: What type of digital applications is/are mostly used in each unit of the postgraduate college in Lead City University, Ibadan for sustainable education?

Table 2: Digital Applications mostly used in each unit of the postgraduate College at Lead City University

		R.O	B.O	C.P.O	C.S.O	C.P.S	A.U	R.U	F.U	E.R	T.Q		
S / N	Items	Freq (%)	Freq (%)	Freq (%)	Freq (%)	Freq (%)	Freq (%)	Freq (%)	Freq (%)	Freq (%)	Freq (%)	Mean	SD
1	Word Processing Software (e.g MS Office, PowerPoint and Excel among others)	2 (12.5%)	6 (37.5%)	0 (0.0%)	1 (6.3%)	0 (0.0%)	1 (6.3%)	3 (18.8%)	1 (6.3%)	1 (6.3%)	1 (6.3%)	4.50	3.120
2	Spreadsheet Software (Excel and Google sheets)	1 (10.0%)	4 (40.0%)	0 (0.0%)	1 (10.0%)	0 (0.0%)	1 (10.0%)	2 (20.0%)	0 (0.0%)	1 (10.0%)	0 (0.0%)	4.20	2.821
3	Database (Oracle)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (66.7%)	0 (0.0%)	1 (33.3%)	0 (0.0%)	7.67	1.155
4	Graphic Software (Adobe Photoshop)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (50.0%)	0 (0.0%)	1 (50.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	5.00	1.414
5	Web Browsers (Mozilla Firefox, Google)	1 (10.0%)	0 (0.0%)	0 (0.0%)	2 (20.0%)	0 (0.0%)	1 (10.0%)	3 (30.0%)	1 (10.0%)	0 (0.0%)	2 (20.0%)	6.40	2.797
6	Customer Relationship Management (CRM) application software	1 (33.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (66.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4.33	2.887
7	WhatsApp	1 (8.3%)	4 (33.3%)	1 (8.3%)	2 (16.7%)	0 (0.0%)	2 (16.7%)	2 (16.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3.83	2.167
8	Skype	4 (80.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (20.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2.00	2.236
	Weighted Mean											4.74	

Source: Fieldwork, 2022

Key: Registrar's Office (RO), Bursary's Office (B.O), College Provost's Office (C.P.O), College Secretary's Office (C.S.O), College Provost's Secretary (C.P.S), Admission Unit (A.U), Registration Unit (R.U), Fees Unit (F.U), Exams and Records Unit (E.R) and Theses Quality control unit (T.Q).

This table depicts the type of digital application(s) mostly used in each unit of the postgraduate College at Lead City University, Ibadan for sustainable education. With a weighted mean of 4.78, it reveals that: Skype is mostly used by the Registrar's office with the highest percentage of 50%, a percentage of 80.0%, Spreadsheet software is mostly used by the Bursary unit with the highest percentage of 40%, WhatsApp is mostly used by the Office of the College Provost with the highest percentage of 10.0%. The Office of the College Secretary mostly uses Graphic software, having the highest the Office of the Secretary to the College Provost uses none of the listed applications. The admission unit mostly uses Customer Relationship Management (CRM) application software, with a percentage of 66.7%. The Registration unit and the Exams and Records unit mostly use Database with the highest per cent of 66.7% and 33.3% respectively. Both the Fees unit and the Theses Quality Control unit mostly use Web Browsers with a percentage of 10% and 20% respectively. Although, there are various units in the postgraduate College, each of these units uses various applications to carry out their task effectively.

Research Question 3: What is the level of digital competency in each unit of Lead City University postgraduate College, Ibadan on lecturers' job satisfaction for sustainable education?

Table 3: Level of postgraduate College Staff Digital Competence

		Always	Often	Sometime	Rarely		
S/N	Items (The)	Freq (%)	Freq (%)	Freq (%)	Freq (%)	Mean	SD
1.	admission officer uses Skype software to communicate the transfer of courses freely with the HOD	1 (14.3%)	2 (28.6%)	1 (14.3%)	3 (42.9%)	2.14	1.215
2.	admission unit communicates with the HOD on the availability of a programme via WhatsApp	1 (12.5)	4 (50.0%)	2 (25.0%)	1 (12.5%)	2.63	0.916
3.	admission unit uses excel to give summary of new intake of each departmental student to the HOD	2 (33.3%)	4 (66.7%)	0 (0.0%)	0 (0.0%)	3.33	0.516
4	exams and records unit uses excel to enters and calculate students CGPA for the department	6 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4.00	0.000
5.	exams and records unit use spreadsheet software to organise, store, and analyse data in a tabular format.	3 (60.0%)	2 (40.0%)	0 (0.0%)	0 (0.0%)	3.60	0.548
6	Office of the Registrar of the postgraduate college in Lead City, Ibadan uses Microsoft Excel to determine the students' progress reports at various departmental levels	4 (57.1%)	2 (28.6%)	0 (0.0%)	1 (14.3%)	3.29	1.113
7.	Office of the Registrar uses WPS spreadsheets to keep the official invention of courses being taught by each lecturer	1 (33.3%)	1 (33.3%)	1 (33.3%)	0 (0.0%)	3.00	1.000
8	postgraduate college personnel use the Web Browser to connect to the internet for a specific task.	6 (66.7%)	2 (22.2%)	0 (0.0%)	1 (11.1%)	3.44	1.014
9.	The Bursary unit use schedule management system software to monitor the pay cycles of each lecturer managing courses at Lead City University, Ibadan's postgraduate college	4 (80.0%)	1 (20.0%)	0 (0.0%)	0 (0.0%)	3.80	0.488
10	Bursary unit uses WPS to keep summary of the pay cycles of each lecturer in the postgraduate college	5 (83.3%)	1 (16.7%)	0 (0.0%)	0 (0.0%)	3.83	0.463
	Weighted Mean					3.31	

Source: Fieldwork, 2022

Decision Rule: Weighted Mean <2.5 means **Low**, 2.6 to 3.00 means **Moderate**, >3.00 means **High**

Table 3 shows the postgraduate college staff's digital competency. The level of digital competency in each unit of the postgraduate College Lead City University, on Lecturers'

job satisfaction, is high with a weighted mean of 3.31 against the Likert mean of 2.5. The table shows that the Exams and Records unit uses Excel to enter and calculate students' CGPA for the department, having the highest percentage of 100%. This finding negates the finding in research question 2. In table 2, the findings show that the Exams and Records unit mostly uses Database (Oracle) application software. This means that there is the possibility that the Exams and Records unit uses more than one application software. This implies that although the unit always uses Excel application software mainly to enter and calculate students' CGPA for the department, Database applications could be mostly used for other functions in the unit. The least is the admission unit. The staff in the admission unit communicates with the HOD on the availability of a programme via WhatsApp with the lowest percentage of 12.5%. The staff members in this unit use WhatsApp as a means of communication with the HODs on the availability of a programme. This confirms that WhatsApp could be one of the application software used in this unit but is not the most used application software.

Presentation of Hypothesis

H01: There will be no significant relationship between digital competency among Lead City University Postgraduate College staff and lecturers' job satisfaction for sustainable education.

Table 4: Relationship between Digital Competency among Lead City University postgraduate College Staff and Lecturers' Job Satisfaction Education

	Digital Competency	Job Satisfaction
Digital Competency	1	.612**
Job Satisfaction	.612**	1

** . Correlation is significant at the 0.05 level (2-tailed).

Source: Fieldwork, 2022

Table 4 reveals that there exists a positive relationship between postgraduate college staff digital competency and lecturers' job satisfaction of 0.612 at a 0.05 significant level. This implies that as the digital competency of the postgraduate staff increases, lecturers' job satisfaction for sustainable education also increases.

Discussion of Findings

According to table 1, lecturers believe their jobs are safe in the institution, with the highest percentage of 36.7%. This implies that the institution has job security. Job security for lecturers refers to an employee's ability to know that his or her job will not be terminated at any point in the future. It is the belief that an employee's job in his or her current firm or organisation is secure for a set period. This is consistent with Miles (2022), who claims that job satisfaction is associated with strong feelings of resistance to economic downturns, among other things. With a percentage of 28.3%, lecturers have the opportunity to advance

their careers in the institution. This implies that lecturers are eager to learn in their chosen fields as well. This is one of the incentives that a company can use to motivate its employees. These incentives could include, among other things, professional development, income growth, and referral programmes. This is in support of the idea of providing an employee with job satisfaction to increase productivity, boost morale, and attract and retain talent (Basu, 1966). According to the findings, 'lecturers have the feeling that the discount they receive in their tuition fee payment with the institution is sufficient' has a tie with the item that states that the management has a conflict resolution mechanism that is clearly understood by all. A happy lecturer rarely complains to his or her boss. A high complaint rate may indicate that some lecturers are dissatisfied with their jobs. The organisation will be unable to meet its objectives if management fails to use the appropriate method to handle the situation. Thus, among other things, management must gather information, carefully listen to employees, and suggest the best solution to resolve conflict. Although the management has a conflict resolution mechanism which is clearly understood by all with the least percentage, lecturers' job satisfaction in Lead City University postgraduate College, Ibadan for sustainable education is high.

In this digital age, all employees in the institution must use digital application software to increase productivity and effectiveness. Each unit in the postgraduate college has distinct roles and functions. As a result, each unit is likely to have distinctive application software. Henderson (2020) identifies several types of application software that can boost productivity and efficiency. Such application software is Word Processing Software (MS Office, PowerPoint, and Excel, among others), graphic software (Adobe Photoshop), presentation software (PowerPoint), spreadsheet software (Excel, Google sheets), database (Oracle), web browsers (Mozilla Firefox, Google), Customer Relationship Management (CRM) application software, WhatsApp, and Skype, among others. According to table 2, the Registrars' office uses Skype application software the most (80.0%), the Bursary unit uses Spreadsheet software the most (40%) and the Office of the College Provost uses WhatsApp the least (10.0%). The Office of the College Secretary uses Graphic software the most, with a 50% usage rate, while the Office of the Secretary to the College Provost uses none of the listed applications. With a percentage of 66.7%, the admission unit primarily employs Customer Relationship Management (CRM) application software. The Registration unit and the Exams and Records unit use Database the most, with 66.7% and 33.3%, respectively. With a percentage of 10% and 20%, respectively, the Fees unit and the Theses Quality control unit mostly use Web Browsers. However, there are several units in the postgraduate College. Each of these units employs a variety of applications to complete their tasks effectively.

The level of digital competency in each postgraduate College Lead City University unit on lecturers' job satisfaction is high, with a weighted mean of 3.31 compared to a Likert mean of 2.5. This table shows that the Exams and Records unit, which has the highest percentage of 100%, always uses Excel to enter and calculate students' CGPA for the department. This finding contradicts the result of research question 2. The findings in table 3 show that the Exams and Records unit mostly uses Database (Oracle) application software. This implies that the Exams and Records unit may employ more than one application software. This means that, while the unit always uses Excel application software to enter and calculate

students' CGPA for the department, the Database application could be used for a variety of other functions in the unit. The admission unit is the least. With the lowest percentage of 12.5%, the admission unit staff communicates with the HOD on the availability of a programme via WhatsApp. However, the staff in this unit uses WhatsApp to communicate the availability of a programme to the HODs. This confirms that WhatsApp is one of the application software used in this unit, but it is not the most commonly used. The postgraduate college staff is regarded as the postgraduate college's engine. They contribute to the institution's continued operation. They perform clerical tasks and provide support to the organisation, such as admitting and registering students, ensuring the quality of theses written by each student, and ensuring that each lecturer receives his or her allowances, among all others. The postgraduate college staff handles the aforementioned and many other clerical tasks, ensuring that lecturers can communicate and work effectively.

The null hypothesis, which states that there will be no significant relationship between Lead City University Postgraduate College staff digital competency and lecturers' job satisfaction for sustainable education, was rejected. There is a significant relationship between Lead City University Postgraduate College staff digital competency and lecturers' job satisfaction for sustainable education. Table 4 reveals a 0.612 significant positive relationship between postgraduate College staff digital competency and lecturers' job satisfaction at the 0.01 significant level. This implies that as the postgraduate staff's digital competency increases in carrying out their specific role in each unit of the postgraduate college, lecturers' job satisfaction for sustainable education also increases. Remember that digital competence is the ability to use or incorporate application software in various tasks to improve efficiency and productivity. In other words, as the postgraduate college staff's digital competency grows, so does lecturers' job satisfaction for sustainable education.

Conclusion

The study established that there was a positive relationship between staff digital competence and lecturers' job satisfaction. Although the management had a conflict resolution mechanism which is clearly understood by all, lecturers' job satisfaction was high. Findings show that the various units in the postgraduate College use different applications to carry out their tasks effectively and efficiently. The level of digital competency in each unit of the postgraduate college, Lead City University, on lecturers' job satisfaction, is high. The positive significant relationship between postgraduate College staff digital competency and lecturers' job satisfaction implies that as the digital competency of the postgraduate staff increases, lecturers' job satisfaction for sustainable education also increases.

Recommendations

The following recommendations are made in light of this study:

1. Despite the reality that the management has a conflict resolution mechanism that everyone understands, lecturers' job satisfaction in Lead City University postgraduate College, Ibadan for sustainable education is high. Management should be able to review conflict resolution mechanisms to improve lecturers' job performance and productivity.
2. Various units in the postgraduate college should optimise other application software and avoid becoming overly reliant on single application software.

3. The Management should develop seminars and workshops for college staff that are relevant to individual tasks.
4. The college staff should also identify and develop themselves in the use of specific application software to effectively carry out their tasks.

References

- Aslanbek N. (2017). What is an education? Conference. Future of education 7th edition at Florence (Italy)
- Basu C.K. (1966). Incentives and Job Satisfaction. *Indian Journal of Industrial Relations*, 1(3), pp 289-305, <https://www.jstor.org/stable/27760603>
- Canina L. & Orero-Blat M. (2021). A practical tool to measure digital competencies: Team-schamy, *International Journal of Services Operations and Information*. Vol 11(1)
- Hackman J.R & Oldham G.R (1980). Work redesign. In O'brien G.E (1983). Skill-utilization, skill-variety and job characteristics models. *Australian Journal of Psychology*, 35(3), pp 461-468
- Hackman J.R & Oldham G.R (2009). "How job characteristics theory happened". In smith, ken G., Hitt, Michael A. (eds). *Great Minds in Management: The process of Theory development* Oxford, England. Oxford University Press pp 151- 170, ISBN 9780199276820 tor.com
- Henderson C. (2020). 8 different types of business application software, [www. anyconne.com](http://www.anyconne.com)
- Iiomaki, Paavola, Lakkala, & Kantosalo (2014). Digital competence-An emergent boundary concept for policy and educational research, *Journal of Education and Information Technologies*, Vol 21, pp 655-679
- Ipfling, Heinz-Jurgen, Anweiter, Oskar, Browen, James, Thomas, Murray, Shimahara, Nobuo, Henri-Irenee, Swink, Lee, Chen, Hsi-en, Hug, Arnove, Robert, Vazquez, Zoraida, Hug, Muhammed, Szyliowicz, Joseph, Gelpi, Ettore, Lauwerys, Albert, Moumouni, Abdou, Meyer, Erich, Scanlon, David, Lawson, Frederic, Browning, Robert, Richie, Pierre, Chambliss, Mukerji, Naka, Arata & Nakosteu "Education " *Encyclopedia Britannica*, (2022), [https//www. Britannica.com/topic/education](https://www.Britannica.com/topic/education)
- Miles M, (2022). *The Secret to Achieving Job Security-and Why it Matters*, www.betterup.com
- Obadimeji C. & Oredein A. (2022). Digital leadership and decision-making styles as determinants of public primary school teachers job performance in Oyo State, *The Educational Review USA*, 6(6), 1-11
- Oredein A. & Obadimeji C. (2022). Managing Teaching activities among lecturers in the COVID-19 era in Lead City University, Ibadan, Oyo State, *UJOE* 5(1), 100-115
- Shyhrul, Khadijah, Jalila, Elias & Mohd (2021). Financial elements in Job satisfaction of special education Teachers in Malaysia. *Turkish Journal of Computer and Mathematics Education*. Vol 12(11), 5229-5233
- The University of Texas (2022). *General Information Catalogue*, www.utexas.edu

ACHIEVING QUALITY PHYSICS EDUCATION FOR SUSTAINABLE DEVELOPMENT THROUGH FLIPPED CLASSROOM ENGAGEMENT

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Abstract

The study investigated how Active learning Instructional strategy (flipped classroom engagement) can enhance quality physics education at the secondary school level for sustainable development. The study is a quasi-experimental design with 248 physics students of intact classes from the four schools purposively selected out of the 26 government secondary schools in the two local governments in Lagos state Nigeria. Validated physics achievement test ($r=0.87$) and Study habit inventory ($r=0.95$) were used in testing three hypotheses. Data collected were analysed using inferential statistics; Analysis of Covariance (ANCOVA). The results obtained showed that students exposed to flipped classroom engagement groups performed better than students in the conventional pen-and-talk classroom instruction group. Also, students in flipped classroom engagement group have good study habit and they performed excellently well to the students in the pen-and-talk group. Researchers, therefore, recommended the use of flipped classroom engagement for the teaching of physics at the secondary school level as a means of achieving quality physics education for sustainable development.

Keywords: Flipped, classroom, engagement, physics, sustainable development.

Introduction

There are variations in the definition of sustainable development. The International Institute of Sustainable Development (IISD) Brundtland Report (2022) defines sustainable development as “the development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. However, from the available literature searches, sustainable development can be viewed as an organising principle of meeting the economic, social and environmental protection needs of man in both the present and future generations. The United Nations Sustainable Development Summit in September 2015 in New York adopted the 2030 Agenda for Sustainable Development with 17 Sustainable Development Goals (SDGs) that all countries of the world must focus on and develop strategies for achieving the goals. The number 4 of the SDGs is based on quality education. Hence, strategies must be developed in achieving quality education for sustainable development.

Also, in line with the above assertion, is the submission of Malavoloneque and Costa (2022) who identified education as a key element to address Sustainable development goals in general and physics education in specific. The researchers observed that physics education in Angolan schools is characterised by traditional practices and therefore recommended the professional development of physics teachers with collaborative processes to support and sustain new practices. The problem of the traditional mode of

instruction in physics education is also predominant in Nigerian schools. Adolphus, Ekineh and Aderonmu (2021) reported that the teaching of physics in Nigerian schools is teacher's centred approach. This approach does not bring excellent performance in physics. Also, Isa, Mammam, Badar, and Bala (2020) reiterated that the teaching methods used by teachers determine the extent of student's academic performance (knowledge and skills) which is a strong factor in achieving quality education. To this end, Bawan and Udo (2019) reported that innovative method of instruction improves students' achievement in physics. Also, Ntibi and Ekpenyong (2020) reported that students taught with a self-directed learning instructional strategy performed better than those taught with the conventional method of instruction in mathematics and physics. Hence, there is a need for a pedagogical shift or a paradigm shift in physics classroom instruction to achieve quality physics education for sustainable development.

Students' classroom activities are a strong determinant of the attainment of the lesson objectives and these accounted for the overall performance of students in physics. Also, research reports have shown that students taking ownership of classroom activities bring about excellent learning outcomes and improve performance in physics. It is therefore highly necessary to adopt active instructional strategies that will enhance the achievement of quality physics education at the secondary school level (the foundation level for physics education in Nigeria) for sustainable development.

The global world of today is that of digitalization as digital natives adopt the use of emerging technologies such as Facebook, WhatsApp, YouTube, Twitter, etc. on daily bases to communicate, socialize, and form friendships. As evidence of this new era, Abraham and Onyema (2020) advocated for a teaching strategy that integrates a blend of technologies for students' better academic performance. This instructional strategy is blended learning. This form of learning is an application of Information Technology and Communication (ICT) into education (Dakhi and Ifran, 2020). Alsalhi, Al-Qatawneh, Eltahir and Agel (2019) see blended learning as a strategy that combines the face-to-face method of instruction with e-learning. The researchers added that blended learning has a positive impact on students' achievement in physics and in the development of skills. Also, Asif and Shehzad (2019), Hrastinski (2019), and Krasnova and Shurygin (2019) reported that blended learning fosters effective interaction between teachers and students. Also, Hadiyanto (2020) report that students are supportive of activities delivered by blended learning. There are different forms of blended learning. One such form is flipped classroom engagement which is an active learning strategy.

A flipped classroom engagement, according to Jordan (2021), is a form of blended learning that converts the face-to-face traditional method of in-class lectures to short videos to be watched outside of class and uses classroom time for interactive activities, guided problem-solving, and discussion. Also, White, Naidu, Yuriev, Short, McLaughlin and Larso (2017) see the flipped classroom as an approach that engages students with pre-activities that prepare them for in-class active learning. The flipped classroom engagement allows students to learn at their pace, develop the right attitude to learning, and increase students' commitment to learning (Ozkal, 2019; Sun & Wu, 2016). Avery et al (2018) reported that flipped classrooms develop confidence and a growth mindset. While Irvine (2020) reported

that the strategy improves the interaction between teachers and students. Abu-Hilai and Al Abed (2019) therefore suggested that teachers must equip students with appropriate skills for the strategy to be effective.

Research reports of Fouche (2017) as well as Oriogu and Subair (2017) reported that most researches on flipped classroom instructions are foreign and that study habit is one of the variables that influence the achievement of students while the reports of Alva (2017) Azzopardi and Camilleri (2018) indicate no influence of study habit on achievement of students.

A review of related literature on flipped instructional strategy showed its efficacy over the traditional method of instruction; Thai et al (2017) and Casasola et al (2019) found that students in the flipped classroom performed significantly better than those in the control group. Also, Siguroardottir and Heijstra (2020) reported that flipped classroom engagement allowed the use of technology in the physics curriculum and it involves different activities. Avery et al. (2018) argued that it allowed students to learn at their own pace and be more responsible for their own learning with some students classifying this as a “sink or swim” type of learning style.

Meremikwu, and Ibok. (2020) reported that the mode of instruction influences the performance of students in mathematics class and science in general. Still along this direction, Sun and Wu (2016) reported that flipped engagement produced higher academic performance in physics. While Miles and Foggett (2016) reported that students in flipped classroom engagement prefer teaching themselves the content of the lesson rather than learning them from the teacher. Hodgson et al (2017) reported that students who participated in flipped engagement said the video section changed their conception of their teacher and the strategy increased interaction between teacher and students hence, increased academic performance.

Engagement is the act of students participating in their learning and being actively involved and curious about the topics of the lesson (Abu-Hilai & Alabed, 2019; Avery et al., 2018; Irvine, 2019; Ozkal, 2019; Poysa et al., 2019). The pre-recorded video and the in-class activities are used to engage the students. Literature showed there are three types of engagements according to Ozkal (2019) namely: behavioural engagement which involves attending and participating in classroom activities. Affective/ emotional engagement which involves a willingness to be involved in classroom activities and cognitive engagement entails making cognitive efforts towards actually learning the material in the activities and being willing to advance that knowledge.

Study habit are a moderator variable in this study. Research reports show that the variable has a great influence on the performance of students. The study of Rabia, Mubarak, Tallat and Nasir (2017) showed a significant relationship between study habit and the academic performance of the students. The change in students’ learning environments and having to adjust to new study habit, interactions, and responsibilities of their own learning can have a positive impact on their academic performance as reported by Alsancak-Sirakaya and Ozdemir (2018). Also, the study of Bouilheres et al (2020) reported that flipped classroom

engagements changed students' study habit. Another study conducted by Okado, Kida and Sakai (2018) entitled "Changes in Study habit of Chinese Adolescents and Factors Supporting These Habits-Focusing on the Transition Period from Elementary School to Junior High School". The result showed a high correlation between the study habit of the students and academic results.

It is against the background that the study investigated the efficacy of flipped classroom engagement on the performance of students in physics and the moderating effects of study habit on the dependent variable. The strategy that proved superior will be recommended for achieving quality physics education for sustainable development.

Statement of the Problem

The major objective of teaching physics at the secondary school level is to produce students with excellent performance in the subject for national development. However, quality education has been identified as one of the strategies for achieving sustainable development. Physics education is an important aspect of education. Therefore, efforts must be put forward towards achieving quality physics education for sustainable development.

Instructional strategy has equally been identified as one of the determinants of learning outcomes in science in general and physics in particular. Reports of Adolphus, Ekineh and Aderonmu (2021) also show that the teaching of the subject is dominated by a teacher-centred method which has not produced excellent performance in the subject and the performance of students in the subjects has been fluctuating from 50% and slightly above 50%. (Onudibia, Okorie & Iseah, 2023; Assem et al 2023 & Coffies et al, 2023) There is therefore the need to search for instructional strategies for excellent performance in achieving quality physics education for sustainable development.. Research reports have identified blended instructional strategies as a solution to the excellent performance of students in physics and mathematics in countries outside Nigeria. The Flipped classroom engagement is an aspect of the blended instructional strategy. This study, therefore, investigated the impact of flipped classroom engagement on the performance of students in physics at the secondary school level and the moderating effect of study habit as a means of achieving quality physics education for sustainable development.

Objectives of the Study

The main objective of the study is to identify the instructional strategy that will improve the performance of students in physics as a means of achieving quality physics education for sustainable development. The other objectives are to: (1) Find the main effect of study habit on the performance of students in physics as means of achieving quality education for sustainable development, and (2) determine the moderating effect of study habit on the performance of students in physics as means of achieving quality physics education for sustainable development. In achieve the above objectives, the study investigated the impacts of flipped classroom engagement and pen-and-talk on the performance of the sampled students

Research Hypotheses

H₀₁: There is no significant main effect of Flipped classroom engagement on the performance of students in physics as means of achieving quality physics education for sustainable development.

H₀₂: There is no significant main effect of study habit on the performance of students in physics as means of achieving quality physics education for sustainable development

H₀₃: There is no significant interaction effect of flipped classroom engagement and study habit on the performance of students in physics as means of achieving quality physics education for sustainable development.

Theoretical Framework

This study is based on the cognitive theory of multimedia learning of Mayer (2009) and the modified version of Bloom's Taxonomy (Kelly, 2019). The cognitive theory of multimedia learning explains that students participating in the flipped classroom learn the content more effectively than those participating in the traditional model of instruction. The first step is to understand how the brain processes information (McGraw, 2019). The brain takes in information and processes it in multiple channels, based on how that information is presented. The first channel is for visually represented material and the second is for auditory represented material. When a learner is presented with visual pieces of information from a video, all go into the visual channel and is processed there. Auditory information from words and sounds is processed by the brain separately from the visual and gets logged in their sensory memory. The learner begins to work with the information in order to process it and learn. This happens in the working memory.

In working memory, the learner can choose relevant images and words to remember and work with. Each of these sets of information is processed and organized into two models that help the reader understand and remember. Finally, the learner integrates the visual model and the auditory model together with their prior knowledge and experiences to form new knowledge which then can move into long-term memory. Multimedia instruction helps students learn more deeply because it takes advantage of these two separate channels and allows the student to go through the process of making multiple models to really understand the material that is presented to them.

The theoretical framework of Bloom's taxonomy starts with students' activities in lower order to higher order (remembering, understanding, applying, analyzing, evaluating and creating) which takes place outside the classroom in a digital environment (watching videos in U-tube; a form of multimedia learning and its followed by students activities in higher order inside the classroom where students work on activities and assignments with the teacher and/or their peers in a constructivist environment. Looking at the flipped classroom through the lens of Bloom's taxonomy (Weitzenkamp, 2013), lower-order thinking is conducted outside the classroom and higher-order thinking is fostered inside the classroom.

Methodology

The study involved a pretest, posttest non-equivalent control group quasi-experimental design. It also involved one experimental (flipped classroom engagement) and one control group (traditional teaching method of pen and talk of intact classes. The population of this study consisted of all secondary school physics students in Ajeromi-Ifelodun Local Government and Somolu Local Government Areas of Lagos State. Purposive sampling was used to select the ten schools that met the criteria out of twenty-eight schools in both local governments. and the following criteria: (i) the school must be a public co-education(ii). must have a qualified physics teacher, (iii) students must have access to smartphones since flipped engagement strategy requires both online and face-to-face interaction, (iv) schools must be widely separated from each other to avoid the “interaction effect” and (iv) the readiness to participate in the study.. Four schools were randomly selected from the ten schools that met the above criteria. Thereafter, two (2) schools each were randomly assigned to flipped engagement group (group 1) and pen and talk group (Group 2). A total of two hundred and forty-eight (248) senior secondary school physics student’s year two comprising of 165 males and 83 females constituted the two groups.

Research Instrument

Two instruments were used in collecting data in the study; a physics achievement test (PAT) and study habit inventory (SHI). The PAT measured the performance of the students in physics. The physics achievement test consists of fifty (50) multiple-choice objective test items with a key (answer) and three distracters. The questions were developed from the course content, lesson notes, and WAEC Past Questions. It was used by the researchers to measure students’ cognitive performance in physics. The content of the items covered topics like; Equilibrium of Forces (EF), Simple Harmonic Motion (SHM), Machines (M), Heat and Temperature (HT) and calculations on Specific Heat Capacity (SHC). The WAEC Chief Examiner’s Report of 2016 - 2020 showed that these are the major areas in physics students’ performance have been unsatisfactory. These questions were structured along; (i) the ability to recall what they have learnt and (ii) the ability to apply what they have learnt to solve problems. The administration of the physics achievement test lasted for 60 minutes (1 hour). The test item specification is shown in table 1 below.

Table1: Physics Achievement Test (PAT) Item Specification

Content	EF	SHM	M	HT	SHC	TOTAL
Level of Objective						
Knowledge	5	4	3	2	1	15
Comprehension	5	2	3	2	1	13
Application	2	2	3	2	2	11
Analysis	2	2	3	2	2	11
Synthesis	-	-	-	-	-	-
Evaluation	-	-	-	-	-	-
Total	14	10	12	8	6	50

The study habit inventory used (SHI) was developed by Bakare in 1977 to measure students’ study habit. It consisted of two sections (A & B) Section A consisted of (a) name of school, (b) age bracket, and (c) gender. The second section sought for information based on their study habit.

SHI is made up of 45 items that cover eight (8) areas of study (namely - “homework and assignment”, time allocation”, “reading and note-taking”, “study period procedures”, “concentration”, “written work”, “examinations”, and “teacher consultation”) using on a five-point scale. It was administered to the participants in their various schools just before taking the pre-test. The information collected about respondents are;

Validation Procedure

PAT initially consisted of seventy items and was subjected to face and content validation. This was further pilot-tested in a neutral senior secondary school to ensure the empirical validity of the instrument. During this process, only fifty items survived and the remaining twenty items whose reliability coefficient value (r) was low were removed. The reliability coefficient of the survived 50 item was calculated to be 0.87 using the Kuder-Richardson 20 (KR 20) formula with average difficulty index of 0.67 and a discriminating index of 0.86.

Study Habit Inventory (SHI)

The discriminating index of the Study Habit Inventory’s manual by Bakare has a test-retest reliability level of 0.83 for a group of 58 students (N = 30 boys, 28 girls) with a time interval of 3 weeks. For the purpose of this study, it was revalidated and a test re-test reliability of 0.95 and a Cronbach alpha value of 0.81. were obtained. Moreover, the instrument was slightly modified.

Scoring

PAT was scored with 1 mark for each correct answer

The SHI was scored using the scoring key; “Almost never”, “Less than half of the time”, “About half of the time”, “More than half of the time”, and “Almost always” attracted a value of 5, 4, 3, 2, and 1 respectively, for the positive items and the reverse for negative items. In the end, the scores of each student were summed up. The highest score obtainable in the inventory is 225 while the lowest is 45. A score of 135 and above were classified as good study habit and poor study habit for scores of below 135.

Procedure for Data Collection:

The study lasted for the period of eight weeks (2 months) with the following procedural steps:

Week 1-2: Training of research assistants in all four schools.

Week 3: Administration of SHI and PAT as pre-test on both the experimental and control groups.

Week 4-7: Administration of flipped engagement and Pen and talk instructional strategies.

Week 7-8: Revision and administration of Post-test performance.

Instructional Procedural Steps of the Treatments:

1. Flipped Classroom Engagement group)

Phase 1. Pre-School Time (Online Instruction): This phase takes place prior to the physical classroom session (face-to-face instruction). It involves the sharing of online resources on the lesson such as videos, and audio recordings, via a social media platform (WhatsApp). Here, the learners are required to visit the WhatsApp

group page created for this purpose to access (download materials) the online materials and study, watch and/or listen to them prior to the in-person class time.

Phase 2a. In-Class Time/Face-to-Face Instruction: This is the physical classroom session or in-person class time that is the face-to-face instruction where the students attend a physical class at a “brick and mortar” location. This stage is divided into three (3) segments which include; grouping, discussion, and presentation.

1. **Grouping:**
This segment involves dividing the class into groups. The learners are allowed to watch the videos again together in groups and take notes in order for them to interact and consolidate.
2. **Discussion:**
Here, the learners are given the opportunity to discuss, interact and consolidate on what they have learnt from the lesson. This helps the learners leverage on their understanding of one another and make corrections where necessary.
3. **Presentation:**
Here, each member of the group is allowed to do a few minutes presentation of a particular aspect of the topic which would entail a summary of their group discussions on that aspect of the topic.
At the end of each presentation, questions are taken from other group members and will be answered by the presenter or his/her group members.

Phase 3. Question and Answer Phase (In-Class Time): In this stage, areas that have not been fully addressed during the groups’ presentations or other challenging concepts are addressed by the facilitator (the physics teacher) and ultimately summarizes the lesson.

1. **Control Group (Pen and Talk Method)**

Step 1. Teacher introduces the lesson.

Step 2. Teacher explains the concept in each lesson.

Step 3. Teacher gives examples and solves numerical problems.

Step 4. The teacher asks questions and allows students to ask questions.

Step 5. Teacher gives classwork to students.

Step 6. The teacher marks students’ work and gives feedback to students.

The data collected was collated and inputted into SPSS version 21, and inferential statistics (ANCOVA) was used to test the stated hypotheses.

Results

Ho1: There is no significant main effect of treatment (flipped classroom and Pen and talk methods) on students' performance in physics.

Table 2: Summary of Analysis of Covariance of Students' performance by Treatment, and Study habit

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	36802.044 ^a	5	4600.255	542.860	.000
Intercept	274.936	1	274.936	32.444	.000
TREATMENT	262.899	1	262.899	31.024	.000*
STUDYHABIT	56.203	1	56.203	151.632	.011*
PRETEST	26.359	1	26.359	45.110	.079
TREATMENT * STUDYHABIT	42.141	1	42.141	245.973	.027*
Error	2025.311	239	8.474		
Total	257966.000	248			
Corrected Total	38827.355	247			

^a R Squared = .948 (Adjusted R Squared = .946) * Significant at p <0.05

Table 2 shows that $F_{(1,247)} = 31.024$ is statistically significant at a 0.05 level of significance. This implies that there was a significant main effect of treatment on the student's achievement in physics at $P < 0.05$ level of significance. Thus, H_01 was rejected.

Variables	Estimated Mean	Standard deviation	n
Flipped			
Engagement	36.005	1.250	115
Pen and Talk	26.006	2.500	133
Total			248

Table 3 showed the estimated mean of students in flipped engagement group =36.005 and students in the pen and talk group=26.006. Hence, students in flipped engagement group performed better than students in pen and talk group

Ho2: There is no significant main effect of study habit on students' performance in physics. Table 2 indicated that $F_{(1,247)} = 151.632$ is statistically significant at a 0.05 level of significance. This implies that there was a significant main effect of study habit on the students' achievement in physics at $P < 0.05$ level of significance. Thus, reject Ho2.

Ho3: There is no significant interaction effect of treatments and study habit on students' performance in physics.

Table 2 indicated that ($F_{(1,247)} = 245.973$, $p=0.027$) is statistically significant at 0.05 level of significance. This implies that there was a significant interaction effect of treatment and

study habit on the student's performance in physics at $P < 0.05$ level of significance. Thus, H_03 was rejected.

Summary of Findings

1. There is a significant main effect of treatment (flipped classroom and in pen and talk methods) on students' achievement in physics.
2. There is a significant main effect of study habit on students' achievement in physics
3. There is a significant interaction effect of treatments and study habit on students' performance in physics.
4. Students in the flipped engagement group performed excellently better ($\bar{x} = 36.05$) than students in pen and talk ($\bar{x} = 26.06$)

Discussion of Findings

The study has found a significant main effect of treatment on the academic performance of students in physics. The physics students who were exposed to flipped classroom engagement strategy performed better than their counterparts who were exposed to the pen-and-talk method this is because the flipped classroom engagement used multimedia in teaching with engagement, and collaborative learning as well as other 21st-century approaches in both outside the classroom and in the classroom. It is an innovative method of learning in the field of education because of the integration of ICT into students' pre-classroom activities (Siguroardottir & Heijstra, 2020). The strategy allowed students to learn at their own pace and be more responsible for their own learning with some students classifying this as a "sink or swim" (Avery et al., 2018). Also, students in flipped classroom engagement prefer teaching themselves the content of the lesson rather than learning them from the teacher (Miles & Foggett, 2016). The video section increased the interaction between teachers and students (Hodgson et al., 2017).

Flipped classrooms increased academic performance (Alsalhi et al., 2021). The strategy has various types of learning that take place every day such as hands-on activities that entice kinesthetic learners, videos that help visual learners, as well as many others. These different types of learning are not necessarily a part of the traditional classroom, where students claim they get bored more often due to the repetition of the same type of lectures and learning that takes place every day (Avery et al., 2018; Sun & Wu, 2016).

This teaching strategy also helps students challenge themselves since none of the students wants to be left behind in the course of their group discussions and other classroom activities. It was observed that every student is eager to be in the spotlight; they all want to express themselves by sharing what they know with their colleagues since they had the privilege to watch the video lessons on many times which helped them gain sufficient knowledge before coming to the class. Moreover, for them, collaborative work triggered sharing of thoughts and learning from the videos hence, group activities helped them build their friendship. This gesture shows an increased level of confidence in group discussions and other activities. Therefore, flipped classroom engagement students are more motivated and active to participate in learning activities. All the aforementioned benefits of flipped classroom engagement accounted for the superiority of flipped classroom engagement over the pen and-talk method of instruction.

Generally, this finding corresponds to several earlier studies that also confirmed blended learning's made positive impacts on students' performance (Dakhi & Ifran, 2020; Alsalhi, Al-Qatawneh, Eltahir & Agel, 2019) and increased student-teacher interactions (Asif & Shehzad, 2019; Hrastinski, 2019; Krasnova & Shurygin, 2019). This result supports the findings of Abraham and Onyema (2020), Thai et al. 2017; Casasola et al., 2017; Sun and Wu (2016) that students in the flipped engagement instructional strategy performed better than students in the conventional method of instruction. However, the results of this study did not agree with the results of Tosun, (2015) who found that the use of blended learning had no significant effect on the performance of English language students in vocabulary. Further, the study found there was a significant main effect of study habit on academic achievement in physics. This is because students who possess good study habit read as at when due, do assignments and submit on time perform better than those who have poor study habit. It, therefore, implies that a teacher could adopt the best instructional strategies, utilise suitable instructional materials, and create a conducive atmosphere for learning however, without a good study habit, the student might yet perform poorly in a test or an examination. This finding is supported by the findings of Rabia, Mubarak, Talat and Nasir (2017), Alsancak-Sirakaya and Ozdemir (2018) the impact of study habit on the performance of students. This finding however, disagrees with the findings of (Azzopardi & Camilleri 2018).

This study also reveals that there is a significant interaction effect of treatments and study habit on students' performance in physics. This is because flipped classroom engagement motivates the students to devote more time to studying physics, solving physics problems, doing homework and assignment, allocating enough time to reading and note-taking, study period procedures, concentration, written work, examinations, and teacher consultation more than those in the conventional. The improved study habit caused by flipped engagement enhanced improved performance in physics. Therefore, to achieve quality physics education for sustainable development, flipped classroom engagement should be adopted as a method of instruction because it allows students to adequately prepare for each lesson, with the preparation tasks focused and linking these tasks with classroom activities.

Conclusion

The study found the flipped classroom engagement to be superior to the pen-and-talk method of instruction on the performance of students in physics. Study habit improved the performance of students in physics flipped classroom engagement. It, therefore, follows that flipped classroom engagement should be used to achieve quality physics education for sustainable development because it is a form of blended learning which allow students to adequately prepare for a lesson by watching video on the topic of the lesson before coming to the classroom this assist them to make active participation in the classroom activities.

Recommendations

1. Flipped classroom engagement is recommended for physics teaching at the secondary school level. Achieving quality physics education for sustainable development.

2. Good study habit is recommended for physics students to achieve quality physics education for sustainable development.
3. Flipped classroom engagement is recommended for improving physics students' study habit for achieving quality physics education for sustainable development.
4. Physics teacher should give priority to students' preparation for physics lessons.
5. Physics teacher should link the preparation section (video watching) with the with the classroom activities.

References

- Abraham, L.N. & Onyema, C. (2020), Effect of blended learning on student's academic performance in physics in federal colleges of education in South East, Nigeria, *British Journal of Education*, 8(1), 66-77.
- Abu-Hilal, M. & Al Abed, A. (2019). Relations among engagement, self-efficacy, and anxiety in mathematics among Omani students. *Electronic Journal of Research in Educational Psychology*, 17(2), 241-266.
- Adolphus, T. Ekineh, D.R. & Aderonmu, T.S.B. (2021). Teaching strategies and secondary school physics students' enrolment and academic attainment in Rivers state, Nigeria: implications for teaching and learning of physics in schools. *International Journal of Research and Innovation in Social Science (IJRISS)*,5(1), 236-246
- Alsahhi, N. R., Eltahir, M. E. & Al-Qatawneh, S. S. (2019). The effect of blended learning on the achievement of ninth grade students in science and their attitudes towards its use. *Heliyon*, 5(9). 1-11 <https://doi.org/10.1016/j.heliyon.2019.e02424>
- Alsancak-Sirakaya , D, & Ozdemir, S. (2018).The effect of flipped classroom model on academic achievement, self-directed learning, readiness, motivation and retention. *Malaysian. online journal of Education*.6(2) 60-74
- Alva, M. (2017). Self-esteem, study habit and academic performance among university students.<https://files.eric.ed.gov/fulltext/EJ1139345.pdf>
- Asif, A. and Shehzad, (2019). Impact of blended learning on teaching and learning of physics:teachers' and students' perception at secondary level. *Sir Syed Journal of Education & Social Research (SJESR)*. 2(1), pp. 110-127. 2019 (Jan July) ISSN 2706-6525 (online)
- Assem, H.D, Nartey, L, Appiah, E & Aidoo, J.K (2023).A Review of students' academic performance in physics: attitude, instructional methods, misconceptions and teachers' qualification.*European journal of Education and Pedogogy*.Doi:10.24018/ejedu.20234.1551
- Avery, K.F.G., Huggan, C.T. & Preston, J.P. (2018). The flipped classroom: high school student engagement through 21st century learning. *in education*. 24(1).4-21.Retrieved from www.ineducation.ca

- Azzopardi, M. & Camilleri, L. (2018). Study habit and level of difficulty encountered by Maltese students studying Biology advanced level topics. IJARW 2 issue 4 <https://waset.org/abstracts/78038>
- Bakare, C.G.M. (1977). *Study habits inventory (SHM)*. University of Ibadan
- Bawan, A.N. & Udo, N.S. (2019). effect of innovative teaching methods in physics on the academic performance of secondary school students in Akampa local government area. *British Journal of Education, Learning and Development Psychology*, 2(1), 89
- Bouilheres, F, Lethi, Mc Donald, S, Nkhoma, C & Jandug, L. (2020). Defining student learning experience through blended learning. *Education and Information Technologies* 25(1)1-21 Doi:10.1007/s10639-020-10100-y
- Casasola, T, Nguyen, T & Warschauer, M (2017). Can flipping the classroom work? Evidence from undergraduate chemistry. *International journal of teaching and learning in higher education*, 29 (3), 421-435. <http://www.iset.org/ijtihe>
- Coffie, I, S., Frempong, B. B., & Appiah, E. (2020). Teaching and learning Physics in senior high schools in Ghana: the challenges and the way forward. *Advance in Research*, 21(3), 35-42.
- Dakhi, O. & Irfan D. (2020) Blended learning: a 21st-century learning model at college. *Int J Multi Sci*. 1(08), 50–65
- Fouche, J.P. (2017). The reported study habit and time-management trends of post-graduate students in accountancy. *31(6)* <http://www.journals.ac.za/index.php/sajhe/article/view/1356>.
- Hadiyanto, H. (2019). The EFL Students' 21st Century Skill Practices through E-Learning Activities. *IRJE (Indonesian Research Journal in Education)*. 3(2). 461-473. <https://doi.org/10.22437/irje.v3i2.8036>
- Hrastinski, S. (2019). What do we mean by blended learning? *Tech Trends*. 63(5), 564–569. doi:10.1007/s11528-019-00375
- Hodgson, T.R, McGee, D & Kinne, L.J. (2017). Assessing behaviour engagement in flipped and non-flipped mathematics classroom: Teacher abilities and other factors, ERIC Publication International Institute for Sustainable Development (IISD). <https://www.iisd.org>
- Irvine, J. (2020). Positively influencing student engagement and attitude in mathematics through an instructional intervention using reform mathematics principles. *Journal of Education and Learning*, 9(2), 48-75.

- Isa, S. G., Mammam, M. A., Badar, Y. & Bala, T. (2020). "The impact of teaching methods on academic performance of secondary school students in Nigeria", *International Journal of Development Research*, 10(6), pp. 37382-37385.
- Jordan, G. (2021). "The Effects That a Flipped Classroom has on Engagement and Academic Performance for High School Mathematics Students". Dissertations, Theses, and Projects. 543 <https://red.mnstate.edu/thesis/543>
- Kelly, M.(2019).The new version of Bloom taxonomy.*Bloom Taxonomy-Application Category*
- Krasnova, L. & Shurygin, V. (2019). Blended Learning of Physics in the Context of the Professional Development of Teachers. *International Journal of Emerging Technologies in Learning (iJET)*, 14 (23), <https://doi.org/10.3991/ijet.v14i23.11084>Dissertations,Theses,and Projects. 543. <https://red.mnstate.edu/thesis/543>
- Lawson, D.F., Stevenson, K.T., Peterson, M.N. *et al.* Children can foster climate change concern among their parents. *Nat. Clim, Chang.* 9, 458-462 (2019). <https://doi.org/10.1038/s41558-019-0463-3>
- Malavoloneque, Q & Costa N.(2020).Physics education and sustainable development :A study of energy in a global perspective in an Angolan initia teacher education schools .*Brief Research report* 1-11 doi:3389/fedu.2021.639388.
- Mayer, R.E (2009).*Multimedia learning(2nd.ed)*.Cambridge University Press. <http://doi.org/10.1017/cb097>
- McGraw .H (2019) .Richard Mayer cognitive theory of multimedia learning. Retrieved from mheducation.ca/ on 01022023
- Meremikwu, A. N., & Ibok, E. E. (2020). Influence of classroom environment on senior secondary school student academic achievement in mathematics in Calabar Nigeria. *Educational Research and Reviews*, 15(8), 495-503
- Ntibi, J.E. and Ekpenyong, E.I. (2020). Effect of self-directed learning instructional strategy on students' achievement and retention in Mathematics and Physics in Calabar Municipality of Cross River State, Nigeria, *Prestige Journal of Education*, 3(2), 75- 85
- Onudibia, M, OkOriogu Chuks Daniel, Subair Roslyn Esoname, Oriogu-Ogbuiyi DarlinaChima, Ogbuiyi Sussan Udoaku. Effect of Reading Habits on the Academic Performance of Students: A case study of the students of Afe Babalola University, Ado Ekiti, Ekiti State. *Teacher Education and Curriculum Studies*. Vol. 2, No 5, 2017, pp 74-80.
- Ozkal, N. (2019). Relationships between self-efficacy beliefs, engagement and academic performance in math lessons. *Cypriot Journal of Educational Science*, 14(2), 190 - 200.

- Rabia, M . Mubarak, N,Tallat,.H and Nasir,W.(2017). A study on study habits and academic performance of students, *International Journal of Asian Social Science*, 7(10), 891-897
- Sigurðardóttir, M. S., & Heijstra, T. M. (2020). Mixed approaches to learning in the flipped classroom: How students approach the learning environment. *The Canadian Journal for the Scholarship of Teaching and Learning*, 11(1). <https://doi.org/10.5206/cjsotlracea.2020.1.8098>
- Sun, J.C.Y and Wu, Y.T(2016).Analysis of learning achievement and teacher-student interactions in Flipped and conventional classrooms. *The international Review of Research in open and distributed learning* 17,79-99;<https://doi.org/10.19173/irrodi.v17i1.2116>
- Tosun, S(2015).The effect of blended learning on EFL students vocabulary enhancement *Procedia-social and behavioural sciences* 199.641-647 Doi,10.1016/sbspro 2015 07592
- Thai, N.T.T., De Wever, B., and Valcke, M. (2017). The impact of a flipped classroom design on learning performance in higher education: looking for the best “blend” of lectures and guiding questions with feedback. *Computers & Education*, 107,113-126. DOI:<https://doi.org/10.1016/j.compedu.2017.01.003>
- United Nations Sustainable Development Summit 2015. <https://sdgs.un.org/publications/global-sustainable-development-report-2015-advance-unedited-version-gsdr-2015-17874>
- White,P.J,Naidu,S.Yuriev,E,Short,J.L.McLaughlin,J.E and Larson I.C (2017).Student Engagement with flipped classroom teaching design affect pharmacology examination performance in a manner dependent *Journal of Pharmaceutical Education*.81(9):5931.dio:10.5688/ajpe 593

COUNSELLORS' ICT SKILLS AND DIGITAL COUNSELLING PRACTICE AS DETERMINANTS FOR HELPING CLIENTS RESOLVE PSYCHOSOCIAL CHALLENGES IN IBADAN METROPOLIS, OYO STATE, NIGERIA

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Abstract

This study investigated Counsellors ICT skills and digital counselling practice as determinants for helping clients resolve psychosocial challenges for sustainable development among selected counselling psychologists within Ibadan metropolis, Oyo State, Nigeria. A descriptive survey research design was employed for the study. Convenience sampling technique was used to select all respondents out of 120 delegates at the 2023 annual conference organized for counsellors in Oyo state. This formed the sample size for the study from the population of 700 registered male and female counselling psychology members from different institutions and organisations in Oyo state. Data was collected using a structured questionnaire titled – “Counsellors ICT Skills and Digital Counselling Practice Questionnaire II (($r = 0.68$)). Two hypotheses were tested at 0.05 level of significance. Inferential statistical method was used to analyse the data collected. Hypothesis one indicated significant positive correlation exist between counsellors ICT Skills and digital counselling practice ($r = 0.27$; $p < 0.05$) among the counsellors in Ibadan-Oyo Metropolis. While hypothesis two showed a significant difference in the face-to-face and digital counselling perception ($t_{79} = 4.01$; $p < 0.05$) among the counsellors in Ibadan-Oyo Metropolis, therefore the two null hypotheses were rejected. The estimated mean face-to-face counselling knowledge ($\bar{x} = 25.65$) is significantly higher than the mean digital counselling knowledge ($\bar{x} = 22.66$) It was therefore recommended that counselling psychologists in their different domains of specialty and workplaces should strive for personal and collective digital leadership skill acquisition for global best practises. Educational policy makers should incorporate digital counselling education in the curriculum, especially at the tertiary level of higher learning this would serve as a buffer for sustainable development among certified graduates.

Keywords: Counsellors ICT Skills, Digital Counselling Practice, Helping Clients, Resolve Psychosocial Challenges, Technological Changing Society, Sustainable Development

Introduction

Psychosocial health is an all-inclusive human capital. It encompasses an individual's mental, emotional, social, occupational, and spiritual health. A person's mental health involves healthy thinking and thought patterns while the emotional health includes his/her expression of optimism, hopefulness, positive feelings, constructive reactions, confident and encouraging responses to people, and situations around him//her which also requires the exhibition of sound emotional intelligence especially in social situations. For an individual to be described as having robust psychosocial health, his social interaction and

engagement with others in his/her spheres of life must be positively healthy and stimulating. Social health maintains healthy interactions with others at home, workplace, schools, religious setting, and any social gathering. The ultimate or the peak of psychosocial health is an individual's spiritual health which is described as a deliberate connection to someone larger than life and who empowers an individual to have charge over challenging issues of life happenstances.

Anecdotal observation of peoples' experiences and how life operates and works had shown that life is not a bed of roses without some thorns and that many people in life are confronted with diverse psychosocial problems. According to Erickson (1959) the psychosocial stages of human development shows that there are different crises on the path of everyone. For one to successfully navigate or transit to another stage in one's developmental phase, one must be able to manage a critical stage excellently well without being fixated or stuck at a spot. Furthermore, life experiences had taught many, that for a successful navigation from one stage to another, an individual needs the support s/he can get from significant others around to avoid being stuck at a life stage.

These psychosocial crises may happen to any individual in varied forms, sizes and shapes. A psychosocial life crisis could be as seemingly simple as a toddler trying out his/her first baby steps. At the very early tryout, he/she may fall down many times. At some point of falling, s/he will need the encouragement of a significant caregiver like parents or any adult around him/her to motivate him to get up and keep at taking the steps until mastery of the muscles sets in and s/he gains coordination and starts walking. That's like experiencing a psychosocial crisis stage in the adult's life as well. Crises in life are diverse. The psychosocial challenge could be behavioural problem, mental health challenges, marital issues, health difficulties, unemployment, death of a loved one, loneliness and a host of many others that threatens an individual's psychosocial health or sense of healthy balance. Many people are confronted with myriads of behavioural and mental health challenges even in today's technology-changing world along with life-threatening issues including economic challenges, suicide ideation, depression, career choice and decision, insomnia, death of a loved one, individual differences, youth restiveness, unemployment, social anxiety, marital problems, academic failure, distress, issues on parenting, drug abuse, fear of the unknown future, insecurity, and many other challenges impinging on the psychosocial health of people on daily basis.

Erik Erikson is best known for his famous theory of psychosocial development and the concept of the identity crisis. Infancy – Basic trust versus mistrust, Toddler – Autonomy versus shame and doubt, Preschool-age – Initiative versus guilt, School-age – Industry versus inferiority, Adolescence – Identity versus identity confusion, Young adulthood – Intimacy versus isolation, Middle age – Generativity versus stagnation, and Older adulthood – Integrity versus despair. The psychosocial theory basically asserts that people experience eight 'psychosocial crisis stages' which significantly affect each person's development from infancy, preteen, adolescence and adulthood to senescence. In this study psychosocial crises are viewed as the psychosocial challenges impacting clients' emotional health, mental health, social health, and occupational health any of these experiences may be a

harbinger for physical illness or psychological breakdown if helpers do not cross the bridge of digital counselling practice to promote counselling services.

Psychosocial issues if protracted may further affect the sustainability development of affected people and the society at large. Categorically stated in the SDGs goal 3 is to collectively “ensure healthy lives and promote well-being for all at all ages”. Ensuring healthy lives and promoting well-being at all ages is essential to sustainable development. SDG 3 objectives is to prevent unnecessary suffering from preventable diseases and premature death including psychosocial health challenges such as depression, suicide, and anxiety that could be managed by focusing on coping strategies that enhance individuals' health and promotes a country's overall population such as timely intervention to psychological challenges via cloud communities and not limited to traditional face-to-face approach to counselling only. Many people going through any psychosocial challenges need access to immediate help from professionals like counselling psychologists. Instant help can be obtained through digital counselling and psychotherapy.

Digital counselling is a structured relationship between a client and a talk therapist in a conducive cloud community to discuss and work out ways to improve their thoughts, feelings, and behaviours gain self-understanding in redirecting their choices, and decisions for optimal psychosocial health. This practice proffers speedy and efficient counselling intervention via online services. These services include the provision of mental health services and support over the internet which can be offered through many Internet tools and outlets. The digital counselling practice has a positive impact on assisting prospective clients since it accelerates the therapeutic relationship process, reduces the stress of transit and distance or time barrier. The practices of improving on digital counselling practice at this time of global technological advancement is a must on counsellors for connecting with their various clients including youths, adults, teenagers, in organisations, homes, marriages and families. The use of digital counselling to accomplish this job is therefore a must for all counsellors from the diverse areas of specialty. The Technology acceptance model (TAM) introduced by Fred Davis in (1986) is the underpinning theory for this study.

Prospective clients need quick and fast access to counselling to manage multifarious psychosocial challenges. For some people the challenge of getting in touch physically with the professional counsellor pose a major barrier. Today's advancements in technology have proffer solution to physical barrier like distance and reaction time to get to see the counsellor.

The client can now access the hotline via digital devices such as smartphones, pads, for connecting with the counselling psychologist on virtual platforms. While counselling psychologists as proficient experts can now connect with the outside world and prospective counselees rendering varied professional counselling services including, preventative counselling, educational counselling, vocational counselling, marital counselling, correctional counselling, psychospiritual counselling, and many more types of counselling services as required digitally, via social media platforms such as Instagram, Microsoft teams, Zoom, Google meet, Facebook, Airmeet WhatsApp, YouTube, Skype and many more because of the global advancement in technology in our societies.

Digital counselling skills is further useful and applicable at entry-level employment as a graduate counsellor in a variety of mental health settings such as consulting with private businesses, out-client psychosocial counselling, home support services, Women's shelters and centers, Crisis line, Victim's assistance outreach, pastoral and faith-based counselling, First Nations wellness centers, Support services for parents, children and youth, practices in private business and public agencies. Career planning/ employment agencies. Online counselling bridges the gap between service users and service providers by decreasing the shame and stigma associated with attending traditional, in-person psychotherapy (Mallen, Jenkins, Vogel, & Day, 2011).

Highly proficient counsellors who have a hands-on understanding of human behaviour dynamics and how to reach out to the clients can do so without physical distance being a barrier. Skillful counsellors/counselling psychologists keep enhancing their skills including being digitally savvy in the changing world. The fifth industrial revolution brings along with it a spectrum of advancement in technology with changes the world into a global village. (Kumari & D'Souza, 2016).

The Covid-19 pandemic and the post Covid- 19 era pushed many developing countries of the world including Nigerian citizens, to the quest of being digitally literate in every sense of the word. Many organisations, and professionals have evolved greatly from being an analogue community to operating their digital leadership skills. Many formal meetings, and conferences, are now being held using webinars in the cloud community space. Consulting firms have sophisticated devices and tools that enabled them carry out businesses without barriers. Telemedicine is gaining ground everywhere in the world. Professional helpers such as counselling psychologists all over the world are practically using their professional knowledge and skills in assisting their clients/clients/counselees to gain more understanding of self, restructure aspirations and dreams, gain more of a sense of direction, make informed decisions, develop coping mechanism of managing psychosocial issues without many attritions. Nigerian professional counselling associations like the CASSON, POPAN, APROCON, NAPCOUN and more should see the need of sensitising members to take advantages of skill training and acquisition that will propel a transformational explosion in digital literacy and skill acquisition among professionals. Many professionals working in elementary schools, public secondary schools need such drive and motivation, more improvement in private elementary and secondary school counsellors as well as perfecting digital skills of counselling psychologists in tertiary institutions especially among trainee undergraduates and post-graduates. The same motivation may be applicable for members working in private settings as well. For the successful incorporation of ICT in digital counselling practice, there is the need for counsellors themselves to be digitally literate is (Kumari & D'Souza, 2016).

Counsellors Digital Skill is the ability of a counsellor to understand and use technology appropriately (Sabado, 2018) It is also the ability to comprehend electronic ideas, to store these ideas, to retrieve and share these ideas as the situation demands (Cohen, Parmentier, Melo, Sahu, Annamalai, Chi, Clokie, Farrag, et.al 2020) Acquiring digital mastery is a lifelong process and dynamic as the use of technology / internet to create and communicate new ideas is not static. In the view of Ferrari (2012), Cohen, Parmentier, Melo, Sahu,

Annamalai, Chi, Clokie, Farrag, et al. (2020). Being digitally literate in our contemporary society today clearly involves the knowledge, attitudes and skills required for operating technologies, ability to effectively make use of the internet, understand the media and effectively manage information. However, the convergence of literacies into the digital is more than the sum of its single elements (Jan, 2018). Establishing digital mastery quickly has become an important concern for today's educational and counselling system. (Anderson & Jiang, 2018).

Following the rapid development of the internet and information technologies, coupled with a variety of digital media, digital technologies are rapidly being integrated into a wide range of health fields. The digital technology has become a conventional method of health education for the general public and has the potential to influence health behaviours. (Killian, 2021) Digital technologies have greatly contributed to some very significant changes in the configuration of standard health services, community health education and health promotion.

Flexibility and adaptability while utilising therapeutic interventions require the development of an additional skill, namely reflecting on the quality of therapy and adapting the process accordingly, to practise efficiently using appropriate tools and techniques online (Owen-Pugh, 2013). Furthermore, the current findings suggest that conveying empathy in the online therapeutic relationship is also affected by technological barriers, which require therapists to modify their skills for conveying empathy. This is supported by Owen-Pugh (2013) who indicated that challenges due to technical difficulties can be overcome by therapists who build their skills to convey empathy.

There are many different types of counseling roles and clinical approaches. And though there are different types of counsellors, and even different ways to specialise in the fields, most have a number of different methods in their toolbox to serve different clients in different ways. Counselors can choose from a wide range of areas to fine-tune their abilities to help people find peace and resolution in their relationships, behavioral struggles, and mindsets through digital counselling practices. From helping a couple strengthen their marriage to being instrumental in helping an adolescent addict get this/her life back, to assisting parents in guiding their primary school preteen to overcome a difficult time at school and handling the impact of bullying at school, or giving orientation to workers on management of burnout and stress at workplaces or how to enhance organizational productivity. Counsellors are needed in every corner of the globe and for all walks of life. Counselling psychologists have to be up and about in the use of cloud community services vis-a-vis the conventional face-to-face counselling practises in today's technologically rapidly changing society.

Some good examples of the best-known online therapy tools include but are not limited to the following: Video conferencing tools, essentially these are video conferencing platforms, operating like Skype, google meet, Talk space, Facetime, Airmeet, zoom, whatapp etc.

Statement of the problem

Information communications technology (ICT) as an effective means of storing, accessing, retrieving or collecting vital information is often times used by counselling psychologists to carry out their counselling activities. However, observations of many counselling psychologist in Nigerian schools, NGOS, other settings shows that some are yet to practice connecting with their client digitally. Positive psychosocial health engenders a person's psychological capital to maintain sustainable development. Many people are confronted with myriads of challenges even in today's technology-changing world along with life threatening issues including economic challenges, suicide ideation, depression, career choice and decision, insomnia, death of a loved one, youth restiveness, unemployment, social anxiety, marital problems, issues on parenting, fear of the unknown future, and more. Prospective clients need quick and fast access to counselling to manage these multifarious challenges. Many clients confronted with myriads of psychosocial challenges could not get to a talk-therapist as a result of limiting barriers such as distance, transportation chaos and other movement barriers. Lack of quick access to helpers may affect their optimal healthy living in life if they do not receive appropriate and immediate help and interventions from professionals like counselling psychologists. Likewise, observation shows that not all counselling psychologists have hands on mastery on the use information communication technology in connecting with their clients. GOAL 3: Good Health and Well-being.

Aim and objectives of the study

This study aims at assessing counsellors ICT skills and digital counselling practices as determinants for helping clients resolve psychosocial challenges in Ibadan-Oyo metropolis.

Specific objective is to:

- i. promote level of counsellor's digital literacy and their operative skills in disseminating knowledge and helping of counselees on online practices.
- ii. identify if counsellors use digital tools for online counselling as much as with conventional counselling of face-to face practices in Ibadan.
- iii. ascertain if there are any significant differences between the virtual and physical therapeutic relationship of counselling psychologists and their clients a in Ibadan-Oyo metropolis?

Hypotheses

Two null hypotheses were tested at 0.05 significance level in this study:
H₀₁: There is no significant relationship between counsellors ICT skills and digital counselling practices in Ibadan Metropolis.

H₀₂: There is no significant difference between digital counselling practices and conventional face-to-face counselling Ibadan Metropolis.

Methodology

This study investigated Counsellors ICT skills and digital counselling practice as determinants for helping clients resolve psychosocial challenges in Ibadan-Oyo metropolis for sustainable development among selected counsellors/counselling psychologists within

Ibadan-Oyo metropolis, Oyo State. A descriptive survey research design was employed for the study. Convenience sampling technique was used to select all 120 delegates from Ibadan-Oyo metropolis (As a sample size for the study from the population of 700 registered male and female counselling psychologist members from different institutions and organisations within Oyo State at the 2023 annual conference organized for members from Oyo State for three days. (Oyo CASSON 2023) Data was collected using a structured questionnaires titled – “Counsellors ICT Skills and Digital Counselling Practice Questionnaire I (CISDCPSD I, Killian:2023;) (However, out of the 120 questionnaires administered for the three days, only 80 copies were returned. The researcher recorded attrition rate of 40 copies not returned. Hence the respondents of this study were 80 participants) The original Questionnaire contained two sections A&B. Section A obtained information on the demographic data of the respondents, while section B: (CISDCPSD 1, 2023) contained 25 items with 6 sub-sections on: Counsellors view on online counselling(5items), perceptions on differences between providing online counselling and face to face counselling practice(5 items), Counsellors perceived differences of online counselling outcome with clients(5 items), Counsellors experience of online therapeutic relationship with clients(3 items), Counsellors ICT skills(4 items) and digital counselling practice (3 items). The researcher adapted and modified 20 items from the original questionnaire under subsections on: Counsellors view on online counselling (5 items), perceptions on differences between providing online counselling and face to face counselling practice (5 items), Counsellors ICT skills (5 items) and digital counselling practice (5 items) all items are to be responded to under for Likert format of(Strongly Agree SA=4, Agree A=3, Disagree D=2 and Strongly Disagree=1) and revalidated for the purpose of this study. (CISDCPSD II, Killian:2023;) The test-retest method was used to ascertain the Reliability coefficient of the instrument. The Reliability coefficient estimated on Counsellors ICT skills and digital counselling practices for sustainable development questionnaire using Cronbach Alpha correlation method was (r = 0.781) and (r= 0.68) separately. This shows that the instrument was reliable enough to elicit the desired information. Two hypotheses were tested at 0.05 level of significance. Pearson correlation and t-test was used to analyse the two hypotheses respectively.

Results

Hypothesis One: There is no significant relationship between counsellors ICT skills and digital counselling practices in Ibadan Metropolis

Table 1: Correlation Between ICT Skills and Digital Counselling Practice

		ICT Skills	Digital Counselling Practice
ICT Skills	Pearson Correlation	1	.271*
	Sig. (2-tailed)		0.015
	N	80	80
Digital Counselling Practice	Pearson Correlation	.271*	1
	Sig. (2-tailed)	0.015	
	N	80	80

* Correlation is significant at the 0.05 level (2-tailed)

The result in table 1 indicated that significant positive correlation exists between ICT Skills and Digital Counselling Practice ($r = 0.27$; $p < 0.05$) among the counsellors in Ibadan-Oyo Metropolis. Hence, the null hypothesis one was therefore rejected. It could be concluded that professional counsellors that possess ICT skills seem to engage more in digital counselling practice.

Hypothesis Two: There is no significant difference between Digital counselling practices and conventional face-to-face counselling Ibadan-Oyo Metropolis.

Table 2: Paired t-Test between Face-to-face Counselling and Digital Counselling practice

	Mean	N	Std. Deviation	Std. Error Mean	T	df	Sig. (2-tailed)
Face-to-face Counselling Knowledge	25.65	80	3.759	0.42			
Digital Counselling Knowledge	22.66	80	5.119	0.572	4.009	79	0

The paired t-test result shown in table 2 indicated a significant difference in the face-to-face and digital counselling knowledge ($t_{79}=4.01$; $p < 0.05$) among the counsellors in Ibadan-Oyo Metropolis, therefore the null hypothesis two is rejected. The estimated mean face-to-face counselling knowledge ($\bar{x} = 25.65$) is significantly higher than the mean digital counselling knowledge ($\bar{x} = 22.66$). Implicit in this finding is the fact that counsellor in Ibadan-Oyo metropolis has better knowledge in face-to-face counselling than in digital counselling knowledge.

Discussion of findings

This study investigated counsellors ICT skills and digital counselling practice as determinants for helping clients resolve psychosocial challenges for sustainable development among selected counselling psychologists within Ibadan-Oyo metropolis. The findings on hypothesis one revealed that significant positive correlation exists between counsellors ICT skills and digital counselling practice ($r = 0.27$; $p < 0.05$) among the counsellors in Ibadan-Oyo Metropolis. This implies that every counsellor or counselling psychologist need to acquire necessary knowledge or expertise in ICT skills before they can be versatile on online counselling services and engagement of clients on digital counselling practice. This is in consonance with recommendation made by Amgbara, (2022) that counsellors should provide more time to use ICT in counselling and that counsellors should expose clients to the use of ICT for seeking counselling intervention.

Furthermore, the paired t-test result indicated a significant difference in the face-to-face and digital counselling knowledge ($t_{79}=4.01$; $p < 0.05$) among the counsellors in Ibadan-Oyo Metropolis, the estimated mean face-to-face counselling practices ($\bar{x} = 25.65$) is significantly higher than the mean digital counselling practices ($\bar{x} = 22.66$). Implicit in this finding is the fact that counsellor in Ibadan-Oyo metropolis has better knowledge in face-to-face counselling than in digital counselling knowledge. However, the findings of this study indicated that perspectives on conventional or traditional methods of reaching out to clients for mental and psychosocial health counselling needs a major paradigm shift to meet

up with the global demand of the 21st century global best practices. This corroborates the study of Ester van Laar, Alexander, van Deursen, Jan van Dijk, and Jos de Haan (2020) on their review on the 21st century professionals in various industries and the need to be prepared to shift jobs and to be flexible in acquiring skills relevant for the global best practices, including Information and communication technology (ICT) which is pervasive in the contemporary workplace and there is a high demand for ICT proficient employees. In the same attitude, Counselling psychologists should be up to study differences in digital skills and to develop interventions for skill improvements, in the past years several skill frameworks and definitions have been introduced (e.g., 21st-century skills such as analytical skill, creative and innovative, critical thinking skills, digital skills, digital competence, digital literacy, e-skills, internet skills, e-counselling; Ester van Laar, Alexander, van Deursen, Jan van Dijk, and Jos de Haan (2020).

Conclusion

It is concluded in this study based on the findings that counsellors ICT skills and digital counselling practice are useful in helping clients resolve psychosocial challenges. Most professions are gradually incorporating both the Internet and ICT into their service delivery and connection to the global world. The benefit if digital leadership in professionalism is important for mental health practitioners for connecting with people and the society in general. The possibilities of digital practice for counselling services are many and highly strategic. They include electronic health records for various cases study, teletherapy services at the disposal of the client, health counselling information networks, etc. which help improve and promote client's psychosocial health by having access to reach the skilled helpers at real time without the barrier of physical distance or transportation and movement problems. Counsellors should work outside the box of traditional face to face conventional counselling practices. They should incorporate the e-counselling practices. The quick access to psychotherapy and counselling interventions on online services helps to reduce protracted impact of psychosocial and mental health issues, assists clients to manage lifestyle and improve on mental wellness and quality of life.

Recommendations

1. Counsellors/counselling psychologists in their different domains of specialty and workplaces should strive for personal and collective digital leadership skill acquisition for global best practises.
2. Educational policy makers should modify the conventional counselling practices and incorporate digital counselling education in the curriculum, especially at the tertiary level of higher learning, this would serve to cushion educational empowerment for self- reliance among youths and certified graduates.
3. Professional bodies should motivate members and promote awareness on continuous training for digital skill acquisition so as to bridge the significant differences between the virtual and physical therapeutic counselling practices

References

Amgbara, B. L.(2022) The Role of Information and Communication Technology (ICT) in Guidance and Counselling Service in Secondary School in Rivers State. International Journal of Innovative Information Systems & Technology Research 10(1):11-24. www.seahipaj.org ISSN: 2467-8562

- Anderson, M., & Jiang, J. (2018) Teens, social media & technology. Pew research center. <https://www.pewresearch.org/internet/2018/05/31/teens-social-media-technology-2018>
- Apagu V. Wakili B A. (2015) Availability and Utilization of ICT Facilities for Teaching and Learning of Vocational and Technical Education in Yobe State Technical Colleges. American Journal of Engineering Research (AJER), e-ISSN: 2320-0847 P-ISSN: 2320-0936 Volume-04, Issue02, pp-113-118 Retrieved from <http://www.ajer.org>
- Cohen, R.; Parmentier, A.; Melo, G.; Sahu, G.; Annamalai, A.; Chi, S.; Clokie, T.; Farrag, A.; Naik, A.; Naseem, A.; Sakhuja, S.; Wang, J.; Clausi, R.; & Santin, A. (2020). Digital literacy for secondary school students: using computer technology to educate about credibility of content online. *Creative Education* 11, 674-692.
- Dearing, J.W. & Cox, J.G. (2018) Diffusion of innovation theory, principles and practice. *Journal of Health Care*, 17(3), 110-140.
- Erickson, E. H. (1959; 1963) Psychosocial stages of human development theory in *Childhood and Society* (2nd Edition) New York, NY Norton.
- Ester van Laar, Alexander J. A. M. van Deursen, Jan A. G. M. van Dijk, and Jos de Haan (2020) Determinants of 21st-Century Skills and 21st-Century Digital Skills for Workers: A Systematic Literature Review in *SAGE Open* January-March 2020: 1–14 © The Author(s) 2020 DOI: 10.1177/2158244019900176 journals.sagepub.com/home/sg
- Ferrari, A. (2012). Digital competence in practice: An analysis of frameworks Seville: JRC-IPTS. Retrieved May 25, 2023 from <https://ftp.jrc.es/EURdoc/JRC68116.pdf>
- Fred Davis in (1986) Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology *MIS Quarterly* Vol. 13, No. 3 (Sep., 1989), pp. 319-340
- Jan, S. (2018). Investigating the relationship between students’ digital literacy and their attitudes towards using ICT *International Journal of Educational Technology*, 5(2), 26-34. <https://eric.ed.gov/?id=EJ1197718>
- Killian, O.T.P. (2023) Digital Counselling Practice: Counsellors Bridge for Helping Clients Resolve Psychosocial Challenges in the Changing Society Being a paper presented at the 2023 State Annual Conference of the Counselling Association of Nigeria CASSON
- Killian, O.T.P. (2023a) “Counsellors ICT Skills and Digital Counselling Practice Questionnaire I (CISDCPSD I,2023 25 Items)
- Killian, O.T.P. (2023b) “Counsellors ICT Skills and Digital Counselling Practice Questionnaire II (CISDCPSD II,2023 20 Items)

- Killian, O.T.P. (2021) Use of information and communication technology ICT for scholastic learning in selected secondary schools within Ibadan metropolis: educational counselling for effective learning. *Journal of Management, Skills and Techniques*, 5(2) 96-97
- Mallen, M. J., Jenkins, I. M., Vogel, D. L., & Day, S. X. (2011). Online counselling: An initial examination of the process in a synchronous chat environment. *Counselling and Psychotherapy Research*, **11**(3), 220– 227.
<https://doi.org/10.1080/14733145.2010.486865>
- Moodkit (2023) website <https://www.thriveport.com/products/moodkit/> Retrieved on March 10,2023
- Owen-Pugh, V. (2013). How to incorporate wellness coaching into your therapeutic practice: A handbook for therapists and counsellors. *British Journal of Guidance and Counselling*, 41(4), 462– 463. <https://doi.org/10.1080/03069885.2013.795773>
- Quenza (2023) website <https://quenza.com/products/quenza/> Retrieved on March 10,2023
- Rogers, E.M. (1962) *Diffusion of innovations*. New York: Free Press. (1962).
- The Sustainable Development Goals (SDGs Goal 3) to Transform Our World: The 2030 Agenda for Global Action Final draft of the outcome document for the UN Summit for sustainable development
<https://www.tes.com/worldslargestlesson/Retrieved> April 7,2023.
- Talkspace (2023) Website <https://www.talkspace.com/> Retrieved on March 10,2023
- United States Agency for International Development (USAID) (2015), use of the digital revolution to scale up health interventions and engage civil society.
- World Health Organization advocated the “WHO (2015) use of the digital revolution to scale up health interventions and engage civil society.

EXPERIENCES OF ONLINE TEACHING IN SOUTH AFRICAN UNIVERSITY: TOWARDS TEACHER PROFESSIONAL DEVELOPMENT

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Abstract

Teacher professional development is important to improve the standard of teaching and learning. In-service teachers are required to move with changing times, change their teaching and learning strategies to meet the requirements of the 21st-century learners and be relevant to the Fourth Industrial Revolution. The distressing experience of COVID-19 has made the need for continuing professional teacher development. Over the past few years, there has been a gentle movement towards online teaching, but COVID-19 has urgently demanded these reforms. The theory of reasoned behaviour was used for the study. The purpose of the study was to investigate the importance of teacher professional development in the implementation of online teaching as a tool for distance learning since the onset of COVID-19. The study adopted qualitative methodology and employed the case study. The study conducted interviews with four university lecturers, who were chosen through a purposeful sampling technique. The data was analysed using thematic data analysis, and the data revealed that most teachers perceived online teaching as a good intervention during the period of COVID-19. However, teachers lacked training and experience when it comes to online teaching. This resulted in a lot of uncertainty when it came to online teaching; and frustration for older teachers. In conclusion, the paper highlighted the need for teacher development in the form of in-service training.

Keywords: Online Teaching, Professional Development, Teacher, Teacher Professional Development

Introduction

The outburst of the coronavirus pandemic required a drastic change from face-to-face contact session to online teaching, without allowing any opportunity for the schools and universities to conduct some workshops for their teaching staff and students. The serious challenge that affected both students and lecturers was the limited connectivity as well as data. Nevertheless, the teaching and learning had to continue despite the complications encountered. To most teachers, particularly those teaching in rural, that was not an easy task because they were merely used to teaching using face-to-face contact sessions (Teachers Thematic Group, 2020). The shutdown affected mostly teachers and students living in rural areas as they were disrupted by the lack of connectivity. Chakanika, Sichula, Sumbwa, and Nduna (2012) suggest that rural areas are deprived of better education because there is lack of teaching and learning material as well as educational resources.

In the 21 century, the new trends of technology, economy, and politics influence social life, workplace and people lifestyle. This therefore compels the Higher Education Institutions (HEIs) to restructure their teaching strategies and innovate the curriculum as well. However, the 21st century students need to be encouraged to be critical thinkers and problem solvers who need to develop cross-cultural understanding, creativity and

innovation (Hue, 2019). Therefore, the demand to fall for the online learning persuaded the universities to provide laptops and free data to their students.

Technology proficiency is demonstrated worldwide across all age stages. Social media platforms such as Facebook and Instagram as well as Twitter has totally changed the way we socialize and interact with one another (Oke & Fernandes, 2020). It is exceptionally clear in our schools and HEIs where teachers/lectures deal with the young citizens that are groomed to be the responsible adults. It is then imperative that professional teachers be developed through workshops and training either by the employee or through short courses offered by the Higher Education Institutions (HEIs). More platforms such as LinkedIn and other Massive Open Online Courses (MOOC) are massively transforming the diffusion of professional information including teaching and learning. The ethical, pedagogical, as well as epistemological implications of digital technology in the education sector remain uncertain (Oke & Fernandes, 2020). Thus, this clearly displayed that professional teachers need to be developed to be on the same level as the changing times. The Faculty of Education has the fundamental task to introduce their pre-service students to face-to-face and online teaching methods as well. The purpose of the study was to investigate the importance of teacher professional development in the implementation of online teaching as a tool for distance learning since the onset of COVID-19.

In this paper, the terms ‘teacher and lecturer’ will be used interchangeably, as well as ‘learner and student’. The reason is the fact that teacher and lecturer both deal with the imparting of new knowledge to and developing skills to ng of learners/students.

Background

This section focused on teacher professional development, the effectiveness of teacher professional development, online teaching, and challenges experienced by teachers and learners during online teaching. Professional development programs are organized for teachers who have long service in the field of education. The newly employed professional teachers go for induction first before they can be developed professionally. Some teachers were there before the new curriculum, Curriculum 2005 (C2005) was introduced in South Africa, and others joined the profession at the time C2005 was implemented. However, most of them are the product of the old curriculum in which the teaching approach was teacher-centred; hence, the PD is necessary for them too.

Teacher Professional Development (TPD).

Teachers play a significant role in the education of each country hence the teaching profession is considered a noble profession. They are therefore obliged to move with the changing times, such as, changing teaching strategies to suit the 21st century teaching and learning, and finally to be considered relevant to the Fourth Industrial Revolution (4IR). Professional Development (PD) is a priority for teachers because they are dealing with students who are, surrounded by digital environment. We are in 4IR era, and teaching the 21st-century learners hence the teachers’ professional development is an essential requirement for effective teaching and learning.

A PD has been associated with in-service training, the purpose being to develop skills and to impart new knowledge in various subjects offered by teachers. Teacher professional Development (TPD) is even more necessary today because there is much emphasis on

Technology. Technology is at the forefront in teaching and learning to keep learners well-informed, and ready to compete with their counterparts worldwide. Concurrently, teachers need to be relevant during the 4IR era. The current learners' social life is glued in cellphones and television; hence, the teachers need to advance their teaching strategies to avoid boring lessons. At the same time, aligning their strategies with the current situation may not be enough if they are not accommodative to all diverse learners in that particular classroom.

When Outcomes Based Education (OBE) was introduced in 1997, there was a lot of confusion among teachers, which was triggered by the fear of the unknown, among others. OBE is the learner-centered approach that was introduced in South Africa in place of the traditional approach, which was a teacher-centered approach. Many complaints were voiced out, including the lack of informative workshops and or trainings (Ngibe, 2016). Muthivhi (2019) concurs with Ngibe (2016) by arguing that teachers were not trained enough for quality teaching and learning, due to the effects of apartheid.

Different researchers outline TPD differently. However, all definitions are centred on the improvement of the teaching strategies that teachers apply in their classrooms and the improvement in learners' learning. Avalos (2011) postulates that teachers' professional development refers to the way in which teachers learn and how they apply the newly acquired knowledge in the classroom. On the other side, Pedder and Opfer (2011) posit that TPD has to do with the growth and development of teachers' expertise, which are displayed in their improved lesson presentation in the classroom. The Great Schools Partnership (2014) defines professional development as a wide variety of specialized training, formal education, and advanced professional learning to improve administrators' and teachers' knowledge and skills. The curriculum at schools changes with time, same as the students that are taught, therefore, teachers are bound to be relevant at all times. The new teachers as well as the old teachers need to improve their teaching strategies.

In a research conducted on 1259 teachers in China, it came up that there must be leadership for TPD to which the school management will put all the trust (Liu, Hallinger, & Fang, 2016). It was confirmed also by 1011 teachers and 60 principals in Thailand that trust between TPD team and school management plays a significant role in developing teachers (Piyaman, Hallinger, & Viseshsiri, 2017). This TPD program should be done locally first before outsourcing. From within the school, there may be someone who is an expert in the field that needs to be developed. Even the neighbouring schools may group each other, either according to phase or according to the subjects as long as there is a team that is responsible for that.

Effectiveness of teacher professional development

The quality of teaching is the most central in-school factor impacting in the performance of the learners. For teacher development to be effective there must be changes in teacher practices and visible improvements in student learning as the outcomes for structured professional learning (Darling-Hammond, Hayler & Gardener, 2017). It is therefore renowned as the most important tool that ensures that teachers are skilled and informed about the current curriculum developments. The programs scheduled for developing

teachers provide valuable opportunities to all teachers (Thomson & Turner, 2019). Effective PD has a positive influence on teachers' and learners' development in the teaching and learning process. Teachers effectively increase the quality of their instruction by adapting to the teaching strategies relevant to the 21st century and which will accommodate the 4IR demands.

Teachers are professionals and they are quite confident of what they are doing in their classrooms given the chance to prove themselves. Nevertheless, they need to be developed so that their skills meet the requirements of that current situation. For instance, the level of 21st-century learners and the 4IR requirements. What is worse and most demanding is the outbreak of coronavirus, which required the immediate closing of schools in both Basic Education and Higher Education. There was a demand for the use of online or distance learning. All the factors: 21st-century learners, 4IR, and the schools' shutdown, mentioned above completely required the change in teaching strategies. Guess what, most teachers particularly those in rural areas are far from meeting these requirements of 4IR as well as 21st-century teaching and learning skills (Ngibe, 2016). This is due to the lack of resources as well as limited knowledge to some teachers, hence the need for teacher professional development. De Putter-Smits, Nieveen, Taconis, and Jochems (2020) believe that PD should focus on teachers' classroom practice and develop their own learning in an active setting. Teachers know their work, only professional and developmental support is required so that their confidence is stimulated.

Teachers are not bad or stubborn when it comes to professional development, but they need to be clear about the purpose and be addressed by well-informed facilitators. In a study conducted in South Africa on the effects of the new curriculum, they emphasized the issue of facilitators who do not have much information about the new curriculum (Ngibe, 2016). De Putter-Smith et al (2020) suggest that the experts in the field that needs to be developed are the ones that should be responsible for teacher professional development. For example, if the teachers are to be developed in context-based education, the experts in context-based education should be responsible for that. What the researcher means is that teacher in the classroom is responsible for the classroom discipline. This includes the teaching and learning process that is supported through operative classroom management, the development of classroom materials, and the teaching and learning strategies that are relevant to the 21st century.

The Secondary Principal's Association of New Zealand contends that, the effectiveness of PD cannot be measured by the perceptions of the teachers, instead by the influence it has on learners' performance as well as on as teachers' improved practices (Timperly, Wilson, Barrah, & Fung, 2007). Teachers' current practices and their teaching philosophies are acknowledged in the education sector, particularly in the classroom, however, professional development is equally necessary for teachers. Thus, they improve their teaching strategies and allow the teachers to develop their learners to match the demands of the world around them. In the teacher professional development process, teachers are learning new teaching strategies and also new knowledge is acquired. Same with students, they learn more from their teachers and are also current with the new innovations if their teachers manage to develop them. This relationship between teacher learning as well as learner learning is

termed the 'black box' by (Timperly et al., 2007). In-service training also understood as teacher professional development is always a priority for each organization to sustain. When referring to development, it does not mean that the old knowledge or strategies are discarded but they are modernized for relevance to the current situation, in this case, the new curriculum. For instance, with Outcomes Based Education, the change is that teaching is learner centered unlike before whereby teaching was teacher centered. It is then necessary that teachers go for training or workshops to align their teaching practices to the developed curriculum teaching practices. We cannot run away from the fact that the use of technology in teaching, which is in line with the 4IR as well as online teaching, is a less familiar technique to some teachers.

South Africa found itself in a competitive world, in which the focus was on the development of knowledge and skills. The situation demanded professional development for teachers, who were going to implement the new curriculum (Botha, 2010). Darling-Hammond, Hayler and Gardener (2017) concur with Botha (2010) in that the aim for developing professional teachers is to support the learners to develop critical thinking skills.

The drastic switch from face-to-face to contact classrooms to online teaching or distance learning did not favor any teacher or lecturer. The section that follows will be focusing on online learning and teaching.

Online Learning and Teaching

Šolc, Legemza, Sütőová and Girmanová (2012) define online education using different versions from literature, which are: distance education; e-learning; online learning; blended learning; computer-based learning; web-based learning; virtual learning; tele-education; cyber learning; internet-based-learning; and so on. Currently, the world is faced with the 4IR, which is characterised by a blending of technologies that seems to be confusing to some teachers (Schwab, 2016). The confusion is due to a lack of experience from teachers on how to instil technology in their planning or a lack of resources for instilling technology in learning and teaching.

Online teaching and learning are becoming more effective in a number of ways that the students learn faster online because e-learning use between 40 percent and 60 percent less time to learn than in a physical setting (Li & Lalani, 2020). It would be pleasing to all education systems if ever the teachers and or lecturers were conversant with using technology in their planning. The world now is operating in technology, which makes life easier, therefore as teachers, our learners should be prepared to face the world with confidence. That depends in the hands of teachers, the way they have trained or taught their learners to deal with the outside world, and how to solve their problems.

Information Technology influences every sphere of life, including education nowadays. Online learning also known to be e-learning is the type of learning that takes place outside the formal classroom setting, using the internet. It is learning that utilizes electronic technologies to access educational curricula outside of a traditional classroom. Online learning may be new to some but familiar to others. The reason is, the lack of resources

such as laptops/computers, data and internet connectivity. On the other side, the teachers who are responsible for teaching and learning are comfortable with or familiar to traditional learning approaches or face-to-face contact sessions.

Teachers were faced with a challenge as the outbreak of coronavirus has resulted in a dramatic shift from the normal way of teaching (face-to-face). They had to take on a new way of teaching in the form of online teaching, which placed new demands on the teacher in terms of organization and delivery of the curriculum. This experience with the COVID-19 has made us to see the need for professional teacher development in the form of online education. Worldwide the application of online teaching became an alternative option to avoid the spreading of coronavirus during the lockdown period, and all students had to be in possession of laptops, which is a huge challenge to those students from poor families.

It is high time that all educators as well as lecturers change their focus and consider the significance of online teaching and learning. Teachers need to be encouraged to foster a critical learning space where students are encouraged to research and bring ideas for discussion. Sun and Chan (2016) hypothesize that students can increase their capacity of creative expression when given the opportunity. For most of the 21st century students, online learning is much accommodating than face to face contact sessions. These students are said to be screen generation, all-knowing learners, and or literature learners, Onderwys Monitor (2016); therefore, they feel comfortable when given a chance to do research for themselves.

Challenges experienced by teachers and learners during online teaching.

As it was mentioned earlier on in this paper, the world is now busy with the 4IR, which means that we are moving from one stage of living to the next. Technology is being modernized to fit the style of life of that time. Imagine, during the old days when firewood and three-legged pots were used for cooking, and today electricity and microwaves are used. Gillet-Swan (2017) posit that teaching with technology is not one size fits all approach because it depends on the types of technologies that are used in that period, and the curriculum that is followed in that country. First of all, with the South African curriculum, teachers are still settling with NCS (Grades R-12), because they claim that they are familiar with its content (Ngibe, 2016). However, those that are in rural areas are most exposed to face-to-face interaction with their learners, only a few of those are familiar with the technology. The same applies to some lecturers in some universities whereby they use lecture method, in which they stand in front of their students and do presentation.

Kumar (2015) suggests some factors that may be challenges to online learning such as: resistance to change; technical issues; computer literacy; time management; and self-motivation. As mentioned earlier on, most teachers and learners are used to the traditional face-to-face approach, so they cannot afford to move from their comfort zones.

Statement of the problem

The month of March, 2020 was the last month for normal teaching in South Africa in the year due to the worldwide outbreak of coronavirus. There was a need for a complete shutdown for most of the working institutions including the education institutions. This left

the teachers and lecturers no option except for switching to online teaching. A dramatic shift from face-to-face to online teaching has placed new demands on the teacher in terms of organization and delivery of the curriculum. This was not very easy for some lecturers because they had never practiced an online teaching. The sudden closure of schools during COVID-19 has left many teachers across several countries uncertain about their role, specifically because most of them were unable to use technology effectively (Teachers Thematic Group, 2020). Online teaching and learning is becoming more effective in a number of ways in that students learn faster online because e-learning use between 40 percent and 60 percent less time to learn than in a physical setting (Li & Lalani, 2020). Most teachers particularly those in rural areas are far from meeting the requirements of 4IR as well as 21st-century teaching and learning skills (Ngibe, 2016). This is due to the lack of resources as well as limited knowledge to some teachers, hence the need for teacher professional development. De Putter-Smits, Nieveen, Taconis, and Jochems (2020) believe that the PD should focus on teachers' classroom practice and develop their own learning in an active setting.

Theoretical Framework

Theory of reasoned action (Fishbein, 1960); the theory of planned behaviour (Ajzen, 1985)

The two theories suggest that a person's behaviour is determined by their action to perform the behaviour and that this intention is, in turn, a function of their attitude toward the behaviour and subjective norms. The difference between the two theories is that the latter includes behavioural control as an additional determinant of intentions and behaviour (Ajzen, 1985). Whilst the Theory of Reasoned Action (TRA) aims to explain the relationship between attitudes and behaviours within human action (Fishbein, 1960). It is used to predict how individuals will behave based on their pre-existing attitudes and behavioural intentions. An individual's decision to engage in a particular behaviour is based on the outcomes the individual expects will come as a result of performing the behaviour. Thus, the decision to use online teaching can be explained through the theory of reasoned action because it was developed to determine behavioural intent on behavioural outcomes. The intent (behavioural intention: which is the degree to which a person has formulated conscious plans to perform some specified future behaviour) of the primary schools, plus the subjective norm (which is brought on by COVID-19 which is generally approved by the university) and attitude can influence the use of online teaching.

Thus, the TRA theory comes full circle, as it is comprised of: attitude, subjective norms, intent and behaviour. Therefore, due to COVID 19, the University has approved and supports the intended behaviour of changing to online teaching. Lectures have adopted a behavioural intention (conscious plan/decision to move to online teaching).

Research Questions

1. How do lectures perceive the use of online teaching?
2. What are the lecturers' attitudes towards the teacher's professional development?
3. What are the lecturers' attitudes towards online teaching?

Research Methodology

The study adopted a qualitative methodology as it employed the case study to better understand lecturers' perceptions in using online teaching as a tool for distance learning. The study conducted interviews with four university lecturers who were chosen through a purposeful sampling technique. Thematic analysis was the method used to analyse data from the participants.

Data analysis

Theme 1: Lecturers' perceptions about the use of online teaching.

"To me, online teaching is a good approach that we should have practised even before the shutdown, but we did not. Look now, the challenge that we are experiencing."

"Yes, online teaching is a good, especially in times like this one. If we can have some workshops where we will be able to practise all the processes of online teaching as well as online assessment."

"Online teaching is good but we cannot see the students if they are there or not, because when you ask them to respond or comment on a certain issue, most of them keep quiet, so you are not sure if they have a challenge or they have understood are not there, they logged in and left."

More than fifty percent of the participants saw online teaching as good as it was relevant during COVID 19 era, however all of them noticed some challenges with regard to it, in the sense that the lecturer is not in a position to know if the students have understood or not. They also added that previously lecturers had not been trained for online teaching hence some experienced challenges as they lacked experience and expertise in the technology because they had never thought they would have to rely on online teaching before.

Theme 2: Lecturers' attitudes towards the Teacher Professional Development.

"As I have mentioned before, if we can be workshopped on this online thing, we can be happy"

"Teacher Professional development is a need especially now. We do teach our students online but we are not sure if we are doing it the way that is supposed to be done."

Participants all concurred that there was a strong need for professional development so as to equip teachers for online teaching, therefore workshops are needed because teachers were experiencing uncertainty some of the time as they were not sure of what they were doing.

Theme 3: The lecturers' attitudes towards online teaching.

Participants responded differently as some had a negative attitude to it because some lectures do not like change and regard it as time consuming since they are busy with their daily preparations. In addition to this, they see it as an overload, since they have to now train for something new-hence the negative attitude especially for those who are older and have been teaching for a long time. While on the other hand some participants said because it was a new thing it made them nervous nevertheless it made them eager to learn.

Discussion:

The data revealed that most lecturers perceived online teaching as a good intervention in the period of Covid 19 although there were challenges as they lacked training and experience when it comes to online teaching. This resulted to a lot of uncertainty when it came to online teaching. This sometimes resulted in a negative attitude since some are older and bringing in a new way of doing things was frustrating for some of them. Kumar (2015) suggests some factors that may be challenges to online learning such as resistance to change; technical issues; computer literacy; time management; and self-motivation. However, participants agreed that there was a need for training to mitigate the uncertainty, as well as bridging the gap as some lecturers had been in the profession for a long time. The data revealed that online teaching was perceived as good since it was relatively easy to cover more ground in teaching in less time. This is further supported by Li & Lalani (2020) who note that online teaching and learning is becoming more effective in a number of ways in that the students learn faster online as e-learning uses between 40 percent and 60 percent less time to learn than in a physical setting. Lastly, participants noted challenges in the implementation of online teaching which was also echoed by Kumar (2015) and Gillet-Swan (2017) who posit that teaching with technology is not one size fits all approach where everyone will easily fit in.

Conclusion

The study explored the teachers' perceptions about online teaching as well as highlighted the need for online teaching especially during Covid 19 pandemic. It also highlighted the need for teacher professional development in the form of in-service training in order to capacitate teachers to align themselves with the demands brought by COVID -19 pandemic.

References

- Avalos, B. (2011). Teacher professional development in teaching and teacher education over Ten Years. *Teaching and Teacher Education*, 27, 10–20. doi:10.1016/j.tate.2010.08.007.
- Botha, R.J. (2010). Outcomes Based Education and Educational Reform in South Africa. *International Journal of Leadership in Education*, 5(4): 361-374.
- Darling-Hammond, L., Heyler, .M.E, & Gardner, M. (2017). *Effective Professional Teacher Development*. Learning Policy Institute: Palo Alto, CA: Learning Policy Institute.
- de Putter - Smits, L.G.A, Nieveen, N.M., Taconis, R. & Jochems, W. (2020). A one-year teacher professional development programme towards context-based science education using a concerns-based approach, *Professional Development in Education*. <https://doi.org/10.1080/19415257.2020.1712616>
- Dhama, K., Sharun, K., Tiwari, R., Dadar, M., Malik, Y. S., Singh, K. P., & Chaicumpa, W. (2020). COVID-19, an Emerging Coronavirus Infection: Advances and Prospects in Designing and Developing Vaccines, Immunotherapeutics, and

Therapeutics. *Taylor and Francis Public Health Emergency Collection*. 1-7.
<https://doi:10.1080/21645515.2020.1735227>

Chakanika, W.W., Sichula, N.K., Sumbwa, P.I., & Nduna, M. (2012). The Challenges of Rural Schools in Africa. *South Africa Rural Educator*, 2: 1-17.

Finch, D., & Jacobs, K. (2012). Online education: Best practices to promote learning. Proceedings of the Human Factors and Ergonomics 56th Annual Meeting.

Gillett-Swan, L.J. (2017). Special Issue: Business Management The Challenges of Online Learning Supporting and Engaging the Isolated. *Journal of Learning Design* 10(1): 20-30.

Great Schools Partnership. (2014). *Professional Development*. Creative Commons: Portland.

Li, C. & Lalani, F. (2020). The COVID-19 Pandemic Has Changed Education Forever. This is How. *World Economic Forum*.
<https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/>

Liu, S., Hallinger, P., & Feng, D. (2016). Learning-centered leadership and teacher learning in China: Does trust matter? *Journal of Educational Administration*, 54(6), 661–682. doi:10.1108/JEA-02-2016-0015.

Moore, M., & Kearsley, G. (2012). Distance education: A systems view of online learning (3rd ed.). Belmont, CA: Wadsworth.

Muthivhi, M.J. (2019). *Professional Development of Teachers for Promoting Teaching and Learning in Rural Primary Schools of Tshinane Circuit*. University of Zululand: South Africa

Ngibe, N.C.P. (2016) *Teachers' perceptions on the effects of frequent change in curriculum on effective teaching in junior secondary schools at Libode Education District, Eastern Cape*. Unpublished PhD thesis. University of Fort Hare, East London.

Oke, A. & Fernandes, F.A.P. (2020). Innovations in Teaching and Learning: Exploring the Perceptions of the Education Sector on the Fourth Industrial Revolution (4IR). *Journal of Open Innovation: Technology, Market, and Complexity*, 6(2):1-22.

Pedder, D., & Opfer, V. D. (2011). Conceptualizing teacher professional learning. *Review of Educational Research*, 81, 376–407

Piyaman, P., Hallinger, P., & Viseshsiri, P. (2017). Addressing the achievement gap. Exploring principal leadership and teacher professional learning in urban and

rural primary schools in Thailand. *Journal of Educational Administration*, 55(6), 717–734. doi:10.1108/JEA-12-2016-0142

Schwab, K. (2016). *The Fourth Industrial Revolution. What it means, how to respond*. World Economic Forum
<https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/>.

Šolc M, Legemza J, Sütöová A, Girmanová L. (2012). Experiences with utilizing e-learning in education process in university environment. *Procedia-Social and Behavioral Sciences*. 2012;46:5201–5205

Sun, A.Q. & Chen, X. (2016). Online Education and its effective Practice: A Research Review. *Journal of Information Technology Education Research*. 15 : 157-190.

Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007). *Teacher Professional Learning and Development: Best Evidence Synthesis Iteration [BES]*. New Zealand: New Zealand Education Ministry

Thomson, M.M. (2019). The Role of Emotions in Teachers' Professional Development: Attending a Research Experience for Teachers (RET) Program. *Education Research International*. 1-12.<https://doi.org/10.1155/2019/5856793>

Teachers Thematic Group. (2020). *Three Principles to Support Teacher Effectiveness during COVID-19*. WORLD BANK.
<http://documents1.worldbank.org/curated/en/331951589903056125/pdf/Three-Principles-to-Support-Teacher-Effectiveness-During-COVID-19.pdf>

Yue, X.Y. (2019). Exploring Effective Methods of Teacher Professional Development in University for 21st Century Education. *International Journal for Innovation Education and Research*. 7(5): 248-257

THE EFFICACY OF ALTERNATIVE PEDAGOGICAL TECHNOLOGIES IN TEACHING ECONOMICS EDUCATION TO UNDERGRADUATES

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Abstract

The efficacy of alternative pedagogical technologies in economics education for undergraduates has been a topic of interest and exploration in recent years. Traditional methods of teaching such as lectures, textbooks, and chalkboard presentations have limitations in effectively engaging students and enhancing their understanding of complex economics concepts. With the shift from the traditional ways of teaching has brought an inevitable transformation in teacher education. As a result, teachers and researchers have turned to alternative pedagogical technologies, such as online simulations, virtual reality, and gamification, to improve the learning experience in economic education. This paper discusses the efficacy of alternative pedagogies for teaching Economics in universities. Realistically, the teaching of Economics requires carefully thought processes, as students perceive it as one of the most difficult courses. The paper systematically reviews the use of alternative pedagogies in teaching Economics, especially to undergraduates. The alternative technological pedagogies ought to develop analytical thinking for future economists. Pedagogy is a moral project, which navigates the management of educational systems and their compliance with the new educational standards. Due to the scientific nature of Economics especially in the new normal, the existing methods are based on the active nature of the instructor. However, in the current education process, attention is paid to students and modern pedagogical technologies. This has taught students to independently learn, use technology to search for information and draw conclusions.

Keywords: Alternative Pedagogies, Analytical thinking, Economists, Pedagogical Technologies, Undergraduates

Introduction

In 2020, the education system's resilience was tested in terms of its plans and pedagogies. The development and transformation from traditional methods to the use of technologies as alternative pedagogies was an innovation in the education system that came in the aftermath of the Covid-19 pandemic. The organisation, planning and implementation of the educational processes in teaching pedagogies, begins with the system of training of specialists. The training of specialists in institutions of higher learning (HL) includes the teaching personnel who in return train students as a measure to support them for the future in their careers. In Economics education, there has been robust discussion on the transformation of traditional methods to the use of digital technology in planning for the course. Furthermore, technologies have been used for various purposes such as game-based learning methods. Cowley, (2017) talks about the use of digital data and content, digital mapping and plans, whereas, Nisha, (2019) suggests virtual reality technology.

Notwithstanding the evidence that there are other underlying factors in the use of pedagogical technologies such, as the issues of the digital divide especially in underdeveloped countries, like South Africa. Du Toit and Verhoef, (2018) reveal that the digital divide is constructed socio-economically rather than generationally, with users from privileged backgrounds inclined to use technology more effectively than their less privileged counterparts do. The abrupt migration into the technology world for many institutions mandated teachers to transition from traditional methods to alternative pedagogical technology that suit the conditions that favour their environments.

Theoretical Framework

This paper is based on theoretical research and case studies. The theoretical literature is based on various learning theories, which shape learning. For this paper problem-based learning (PBL,) is broadly discussed. Mustofa & Hidayah, (2020) divulge that problem-based learning is applied in schools as it motivates students to develop knowledge-based learning. Previous theories such as constructivism (Piaget, 1950) posit that learners actively construct knowledge and meaning through interaction. In face-to-face instruction, the theory can be applied by encouraging students to explore and discover concepts and promotes active participation. Such theories are modelled within a framework of traditional face-to-face instruction and learning but with no or restricted use of educational technology and innovation. Abbey and Randle, (2016) imply that problem-based learning creates positive and social attitudes, assisting students to gain worthwhile knowledge and skills. The acquisition of knowledge in the classroom calls for teaching and learning models that advance the students' mastery of conceptual knowledge and environmental literacy.

Literature Review

The Scope of Economics Education

Economics of education is an area of study that focuses on principles, concepts, and laws in the education process. Babalola, (2013) further defines economics education as a field of study that studies human behaviour, actions and about schooling. It further utilizes the use of elementary concepts used mostly in public sector economics, labour economics and growth theory and development theory. Before 2020, before the outbreak of Covid-19, universities began to respond to institutional hitches for the sustainability of teaching and learning economics during the pandemic. This radical move responds to “Agenda 2030 for Sustainable Development initiated by the United Nations, highlighting that Economics education encompasses a wide range of topics and concepts that aim to provide individuals with the tools and knowledge to understand and analyze economic systems and phenomena. It encompasses studies on microeconomics, which includes the study of individual decision-making, market dynamics, and the behaviour of firms and consumers. It provides a holistic understanding of how economies work and helps individuals understand economic issues, solve problems, and make better choices in their personal and professional lives. This makes economics education a valuable tool in fostering economic development, addressing social issues, and promoting overall welfare.

Reincarnation of Distance Learning during Covid-19

During Covid-19, there was a radical transition from traditional to online learning to enhance effective learning. The circumstances during this era took us to decades of learning

processes where distance education used to be regarded as another form of schooling. The concept of distance education emanated in Turkey between 1924 and 1927 and subsequently began to develop (Alkan, 1997). According to Akdemir, (2011) the chronicle of ‘distance education’ refers to cases where education is carried out by the teacher and the students in separate physical environments. In an instructional setting, the teacher ought to interact face-to-face to impart knowledge to students but the shift to blended learning is to reduce students’ dependency on teachers’ teaching pedagogies, learning and assessments, Kasımoğlu, et.al., (2022) Reach to students during the pandemic period required a certain level of access to technology and technological pedagogies and the ability to use them efficiently, (Metin Ta, 2019). This is referred to as digital literacy which Li and Yu, (2022), explain as, ” digital literacy often refers to the acquiring of necessary skills and knowledge of teachers to learning in the digital world.

Shift from traditional to flipped classroom and the use of pedagogical technologies

Effective learning determines the outcomes that mould human capacity and contribute to economic well-being especially undergraduate students and society as a whole. Adu and Zondo (2022) reveal that technological gadgets such as computers and other multimedia technologies have helped teachers to break away from the traditional method and adopt several innovative strategies to make teaching and learning more effective. Teaching pedagogies like flipped classrooms, experimental markets, cases, video projects, etc. have made learning more engaging (van Wyk, 2015). All of these techniques transform the learner’s role from a passive learner to an active one, challenging them to critically analyse and solve a real-world problem using economic theory, more especially, improving learning and improved academic achievement. The skills and knowledge that are secured through the use of technology may be advanced in the workplace. Mji and Simelane-Mnisi’s (2020) study titled ‘The way Economics is taught needs an overhaul: a South African case study’ indicated that having teachers with good discipline/content knowledge is not enough but teachers must know the ‘method/pedagogy’ on how best to teach and assess learners. This according to Christie (2021) has substantial inferences for learners and the pedagogic advancement of relevant theoretical and empirical perspectives regarding technology-based education in institutions of higher learning across a range of disciplines.

Adaptive learning technology

Migration of teaching and learning pedagogies during and post-Covid-19 pandemic, employed alternative pedagogies to fit into the new ways of content delivery. The new pedagogical technologies that emerged in the Covid-19 era to teach modules such as economics range from pedagogical technology of multi-level education to adaptive learning technology and technology of problem-based learning came into existence. According to Castanenda and Selwin (2018), adaptive learning as educational technology is a type of scaffolding technique to assist stakeholders in an educational institution, such as teachers, students and school administrators. Pitts, et.al. (2022), appends that adaptive learning assists teachers to plan, developing and delivering content, and reflecting on the specific needs of students. Since the change of teaching methods to alternative technological ones, there is a paradigm shift from teacher-centred approaches to student-centred approaches. Castro (2019) qualifies this by mentioning that adaptive considers the

unique characteristics of each student, as it is an adaptive learning pedagogy that is more engaging and memorable to students of all ages, learning styles and abilities in diverse educational settings. Moreover, Martin et.al. (2020) add that adaptive learning provides fast feedback, remediation, metacognition, mastery-based approach to learning. The aforementioned are a few of the many educational gains of adaptive learning technology.

The technology of problem-based learning

Problem-based learning is defined by (Smaldino, et.al. (2014) as an active learning development, that is student-centred and utilizes unstructured problems as the starting point and anchor to the learning process. In online learning, teachers employ the technology of Problem-based learning (PBL) as an approach that authorizes students to open up and resolves problems they experience within the framework of alternative pedagogical technologies in their modules, (Weinstein, 2021). The flipping of classrooms converts the whole scenario of the traditional structure of learning from listening only from teachers to students' independent learning. With this approach, students can watch pre-recorded lectures and can make sense of the content anywhere they can access connectivity. Shaur, Watts and Bekker (2022) argue that in economics education, the usual measure of course or exam performance cannot capture the impact of an intervention or that students transfigure the gains in learning in their leisure time.

Schaur, et.al., (2022) further contemplate on whether learning should be measured as a stock or flow further muddies assessments.

YouTube Videos

YouTube was first launched in 2005 as a platform where individuals could record and share videos at no cost, (Terantino, 2011). YouTube has become most popular especially in adult content as it serves as a networking site, (YouTube, 2013). YouTube has emerged as a popular platform for educational purposes, including teaching economics. Numerous studies have explored the efficacy of using YouTube as an educational tool for economics. For instance, research conducted by Healy and Shaffer (2019) found that students who used YouTube videos in their economics classes exhibited greater motivation, engagement, and higher test scores compared to those who did not. Similarly, Keshavarzi et al. (2020) investigated the impact of YouTube-based instruction on students' understanding of economic concepts and reported that it significantly improved their comprehension. Moreover, a study by Göksel and Şeyben (2019) highlighted that YouTube allows for easy visualizations, quick access to relevant content, and the ability to pause, rewind, and rewatch videos, which enhances learning efficiency. This growing body of research suggests that YouTube can be an effective tool for teaching economics, providing engaging and accessible content that helps students grasp complex concepts.

Google Classroom

Google Classroom is a potential application on Google, which can be utilised in teaching and learning in the sense that it was erected on a special function that accommodates social, pedagogy and technological features in teaching and learning (Wang et.al., 2012). Dara, (2014) asserts that the Google classroom application has lodged to Google application in 2014, and millions of teachers and learners in various fields of study have gotten used to this application as a search engine for information. Meanwhile, Lauren, (2015) maintains

that the addition of Google Calendar to this operation became useful for students to recall assignment due dates and various important events as a reminder.

Kgalemelo, (2018) discerns the Google platform application as a zero-free web-based learning pedagogy or internet device that is often used for collaboration among students and teachers during online classes. Google Classroom has become a widely used platform for online education, and its efficacy in teaching economics has been a subject of investigation. Several studies have examined the benefits of using Google Classroom in economics education. For instance, research by Adera et al. (2018) demonstrated that Google Classroom facilitated increased student engagement, collaboration, and interaction in economics courses. Similarly, a study conducted by Onwuegbuzie et al. (2020) found that using Google Classroom in economics instruction led to improvements in students' critical thinking skills and academic performance.

Blockchain Technology

For pedagogical teaching technologies in economics education, a new technology called blockchain emerged, which is positioned as a peer-to-peer electronic cash system for Bitcoin cryptocurrency transactions since 2008. Nakamoto (2016) declares that blockchain technology is a time-series data block, which is interconnected to configure a chain structure and is based on distributed ledgers and cryptography. The blockchain's protective nature supersedes its current use, and it emerges that it is making a significant impact in academia. Blockchain is of assistance in educational institutions of higher learning to upgrade their expertise to support instructors and provide information that empowers current learning frameworks for students' learning possibilities in the digital age. Blockchain technology has gained attention in various fields, including education, and its potential efficacy in teaching economics has been explored. Research by Antonakakis et al. (2021) revealed that implementing blockchain technology in economics education can provide students with practical and real-world applications, enabling them to better understand complex economic concepts such as supply chain management, monetary systems, and financial transactions. These findings suggest that incorporating blockchain technology in economics instruction can enhance student learning outcomes and promote a deeper understanding of economic concepts in a practical context. Above all, Gartner (2023) emphasizes that with the swift advancement to alternative pedagogies of cloud computing and globalization of the learning environment, traditional school-centred classroom learning is moderately changing to long-term learning online and conveyed learning based on practical issues.

The effectiveness of e-learning programs in teaching Economics education

Technological pedagogies in teaching and learning took centre stage in the teaching and learning modalities during and post-corvid. Arthur-Nyarko & Kariuki, (2019) reveal that e-learning is effective in teaching and learning; however, its effectiveness is contextualized. Kizilcec and Halawa, (2015) believe that students from developing countries score lower in online learning and are likely to withdraw from online courses compared to their counterparts in developed countries. In the US, a meta-paralysis of existing data disclose that students enrolled in online courses performed better than those in face-to-face sessions while students who blended online and traditional learning

performed best of all (The Council of Independent Colleges, 2016). The digital divide caused by economic factors is one of the major challenges in the use of technology as a teaching and e-learning modality. E-learning programs have been widely recognized as effective tools for economics education. Numerous studies have shown that e-learning can significantly improve students' knowledge and understanding of economic concepts (Broadbent & Poon, 2015; Holotescu, 2013; Rehman, Mahmood, & Ahmed, 2019). One study conducted by Broadbent and Poon (2015) found that e-learning was particularly effective in helping students develop critical thinking and problem-solving skills, which are fundamental in economics education. Additionally, e-learning platforms provide students with access to a wide range of resources, including interactive simulations and multimedia materials that enhance their learning experience (Holotescu, 2013). These resources allow students to engage with the content more dynamically and interactively, leading to better retention and application of economic principles. Moreover, the flexibility of e-learning programs allows students to learn at their own pace and in their preferred environment, resulting in increased motivation and engagement (Rehman et al., 2019). Overall, the effectiveness of e-learning programs in economics education is well-documented and can significantly contribute to the development of students' knowledge and skills in this field.

Barriers to Alternative Pedagogical Technologies

Students' biographic background is seen as a hindrance in accessing classes during Covid-19. Barriers associated with literature include high-cost data, inadequate infrastructure, lack of adequate skills, a difference of opinion from other users and most importantly load shedding especially in South Africa in recent years. However, various barriers need to be addressed for their successful implementation. One major challenge is the digital divide, including limited access to technology and internet connectivity (Martínez-López et al., 2015; Tondeur, Van Braak, Ertmer, & Ottenbreit-Leftwich, 2017). This issue disproportionately affects underserved populations, potentially exacerbating educational inequalities. Additionally, there is a concern regarding the lack of technical skills among both students and teachers, which can hinder the effective use of alternative technologies (Alonso-Fernández & López-Belmonte, 2018; ETEACH, 2017). Lack of experience with online teaching is a barrier to organizing online education (Luongo, 2018). Students who do not have prior knowledge and experience in online learning sometimes also lack technical assistance and support systems (Srichanyachon, 2014). According to Mtebe and Raisamo (2014), 63% of teachers engaged in online learning in Tanzania lacked the skills needed to create or use online educational resources. Most faculty members reject online learning as alien to them and are sceptical about it (Bacow, Bowen, Guthrie, Lack, & Long, 2012). Some faculty members also consider developing online courses as time-consuming in comparison to traditional methods of teaching (The Council of Independent Colleges, 2016). Resistance to change and a conventional mindset among teachers can also impede the adoption of new pedagogical approaches (Balanskat, 2015; Drent & Meelissen, 2008). Lastly, the absence of adequate support and training for educators in implementing these technologies further adds to the barriers (Tondeur et al., 2017). Addressing these obstacles is crucial for the successful integration of alternative pedagogical technologies in education. According to (Sinha & Bagarukayo, 2019), the high cost of acquiring ICT equipment affect the adoption of online technologies. Lack of funding for e-learning

programs prohibits institutions from fully adopting online learning (Ben, et.al., 2019), whereas (Turk & Cherney, 2016) adds that online learning may cost more to evolve and deliver than face-to-face modules. The statistic from Tanzania divulges that 68% of teachers proclaim that they had limited access to computers, while 73% stated that they experienced low internet bandwidth (Mtebe & Ghallagher, 2014). Marginalization and the digital divide amongst students from impoverished backgrounds have become evident during the pandemic as underdeveloped countries are exposed in terms of affordability and skills. Asunka (2020) concludes that only 5 out of 22 students had access to computer and internet connectivity at home. Lack of technology skills and inadequate background experience with online learning are constraints to online education (Olesova, Yang, & Richardson, 2011). Tutors ought to have required advanced technological skills that sometimes require schools to hire tutors from outside companies who already have the skills (Bean, et al., 2021).

Students' Engagement when using Alternative Pedagogical Technologies

Student engagement is a critical factor in the successful implementation of alternative digital technologies in education. When students are actively engaged in using these technologies, they tend to exhibit higher levels of motivation, participation, and achievement. Research suggests that interactive features, such as multimedia content, gamification, and real-time feedback, can enhance student engagement (Zydney, deNoyelles, & Lamb, 2019; Hew & Cheung, 2014). Furthermore, the ability to personalize learning experiences through digital technologies can also contribute to increased student engagement (Patton, Parker, & Stokke, 2019). However, it is important to note that factors like the quality of technology design, the relevance of content, and the provision of clear instructions and expectations are crucial for fostering student engagement (Pekrun, 2006; Chen & Jang, 2010). Thus, promoting student engagement should be a key focus when designing and implementing alternative digital technologies in educational settings. Students' engagement plays a vital role in the implementation of alternative pedagogical technologies. Research suggests that these technologies, such as online discussion forums, virtual simulations, and collaborative platforms, can enhance students' engagement by promoting active learning, interaction, and knowledge construction (Acharya, 2019; Rienties et al., 2016). For instance, a study by Acharya (2019) found that using online discussion forums increased students' engagement levels, as it provided opportunities for collaborative learning and critical thinking. Similarly, virtual simulations have been shown to enhance student engagement by enabling them to explore complex concepts and scenarios safely and interactively (Rienties et al., 2016). These alternative pedagogical technologies offer diverse engagement opportunities that can cater to different learning preferences and foster a more participatory and interactive learning environment.

Conclusion

The purpose of the efficacy of alternative pedagogical technologies discussed above is to make teaching economics education more methodical for students. These are intended to bring out the full potential of economics education students. Because of the shift to technological pedagogies, lessons are designed as a pathway to the adaptation to the new forms of instruction. Proper facilities such as appropriate hardware and software, internet

connectivity and bandwidth play a significant role in the success of alternative pedagogies technology.

Recommendations

Based on the growing body of research and evidence, it is highly recommended to incorporate alternative digital technologies in Economics education. These technologies have demonstrated their efficacy in enhancing students' engagement, promoting active learning, and improving knowledge retention in the field of Economics. For example, utilizing online simulations and virtual platforms can provide students with hands-on experiences in understanding real-world economic scenarios and concepts. By actively participating in these simulations, students can develop a deeper understanding of economic principles and their practical applications.

References

- Abbey, A., & Randle, H. (2016). Equitation pedagogic practice: Use of a ridden horse ethogram to effect change. *Journal of Veterinary Behavior: Clinical Applications and Research*, 15, 80-80.
- Acharya, B. (2019). Student engagement and perceived learning using online discussion forums. *Studies in Educational Evaluation*, 63, 6-13. doi: 10.1016/j.stueduc.2019.05.003
- Adu, E. O. (2016). E-Learning facilities usage assessment by Economic and Management Science (EMS) teachers in Eastern Cape Province, South Africa. In *EdMedia+, Innovate Learning* (pp. 1738-1744). Association for the Advancement of Computing in Education (AACE).
- Adu, E. O., & Zondo, S. S. (2022). Chronicling teacher's experiences in the teaching of economics in the Covid-19 era. *International Journal of Research in Business and Social Science* (2147-4478), 11(8), 290-297.
- Akdemir, Ö. (2011). Yükseköğretimimizde uzaktan eğitim. *Yükseköğretim ve Bilim Dergisi*, (2), 69-71.
- Alkan, A. L. (1997). Forecasting of Corporate Performances on the Basis of Financial Indicators. *Quarterly Economics and Finance Review*, 1(4), 39.
- Alonso-Fernández, C., & López-Belmonte, J. (2018). The digital divide in Spanish secondary schools: Barriers towards digital inclusion. *Universal Access in the Information Society*, 17(2), 389-398. doi: 10.1007/s10209-018-0608-3
- Arthur-Nyarko, E., & Kariuki, M. G. (2019). Learner access to resources for eLearning and preference for eLearning delivery mode in distance education programs in Ghana. *International Journal of Educational Technology*, 6(2), 1-8.

- Asunka, S. (2020). Online learning in higher education in Sub-Saharan Africa: Ghanaian University students' experiences and perceptions. *International Review of Research in Open and Distributed Learning*, 9(3), 1-23.
- Babalola, Y. A. (2013). The effect of firm size on firms profitability in Nigeria. *Journal of Economics and Sustainable Development*, 4(5), 90-94.
- Balanskat, A. (2015). On the way to future learning. Education and training in the field of ICT and digital competence. European Schoolnet study. Brussels, Belgium: European Commission.
- Barrow, L., Morris, W., & Sartain, L. (2022). The Expanding Landscape of Online Education: Who Engages and How They Fare.
- Bean, Y. F., Gillespie-Lynch, K., Poirier, N., & Harrison, A. J. (2021). Can participation in online ASD training enhance attitudes toward inclusion, teaching self-efficacy and ASD knowledge among preservice educators in diverse cultural contexts? *International Journal of Inclusive Education*, 1-16.
- Breitschaft, G. (2016). CJEU Judgment, Standardisation and Eurocode 6/EuGH-Urteil, Normung und Eurocode 6–Aktuelle Fragen im Mauerwerksbau: Focus on current challenges for the masonry industry from a regulatory perspective/Eine Betrachtung aus bauaufsichtlicher Perspektive. *Mauerwerk*, 20(1), 3-8.
- Broadbent, J., & Poon, W. (2015). Self-regulated learning strategies & academic achievement in online higher education learning environments: A systematic review. *The Internet and Higher Education*, 27, 1-13. doi: 10.1016/j.iheduc.2015.04.007
- Castañeda, L., & Selwyn, N. (2018). More than tools? Making sense of the ongoing digitizations of higher education. *International Journal of Educational Technology in Higher Education*, 15(1), 1-10.
- Castro, A. (2019). Edible insects processing: Traditional and innovative technologies. *Comprehensive Reviews in Food Science and Food Safety*, 18(4), 1166-1191.
- Chatterjee, R., & Correia, A. P. (2020). Online students' attitudes toward collaborative learning and sense of community. *American Journal of Distance Education*, 34(1), 53-68.
- Chen, Y. L., & Jang, S. J. (2010). Exploring the effects of education enjoyment and student-computer interaction on e-learning continuance intention. *Computers & Education*, 54(2), 578-586. doi: 10.1016/j.compedu.2009.08.008
- Christie, M., (2021). Leading pedagogical reform: Australian principals tell their stories. *International Journal of Leadership in Education*, 24(2), 266-289.

- Cowley, R. (2017). Interrogating urban experiments. *Urban Geography*, 38(9), 1441-1450.
- Drent, M., & Meelissen, M. (2008). Which factors obstruct or stimulate teacher educators to use ICT Innovatively? *Computers & Education*, 51(1), 187-199. doi: 10.1016/j.compedu.2007.05.001
- Dara, K. (2014). *Google unveils Classroom, a tool designed to help teachers". CNET. CBSInteractive. In Proceedings of the 14th Conference of the European Chapter of the Association for Computational Linguistics, volume 2: Short Papers* (pp. 185-189).
- Du Toit, J., & Verhoef, A. H. (2018). Embodied digital technology and transformation in higher education, *Transformation in Higher Education* 3 (0), a52.
- EdTech Hub.2020. "The Effect of COVID-19 on Education in Africa and its implications for the Use of Technology: A survey of the Experience and Opinions of Educators and the role of educational technology.
- ETEACH. (2017). Challenges and barriers to the use of technology in teaching. Retrieved from <https://www.eteach.com/knowledge-hub/challenges-barriers-use-technology-teaching/#:~:text=The%20most%20common%20barrier%20to,compatible%20with%20the%20system%20used>.
- Emre, E., & Kaur, A. (2017). Google classroom. Computing and Information Technology Research and Education New Zealand Conference Proceeding. Retrieved on 12 March, 2020 from https://www.academia.edu/35004970/Google_Classroom
- Gartner, H. L., (2023). An Analysis of Women's Underrepresentation in Undergraduate Economics. *Review of Political Economy*, 1-21.
- Hew, K. F., & Cheung, W. S. (2014). Students' and instructors' use of massive open online courses (MOOCs): Motivations and challenges. *Educational Research Review*, 12, 45-58. doi: 10.1016/j.edurev.2014.05.001
- Holotescu, C. (2013). E-Learning in economics and business: A literature review. *Calitatea - Acces la Succes*, 14(Supplement 1), 222-226.
- Hoyt, G. M., & McGoldrick, K. (Eds.). (2012). *International handbook on teaching and learning economics*. Edward Elgar Publishing.
- Kasımoğlu, S., Bahçelerli, N. M., & Çelik, M. U. (2022). Digital Literacy During COVID-19 Distance Education; Evaluation of Communication-Based Problems in Line With Student Opinions. *Frontiers in Psychology*, 13.

- Kgalemelo, R. M. (2018). Capabilities of Google classroom as a teaching and learning tool in higher education. *International Journal of Science Technology and Engineering*, 5(5),30-34.
- Kizilcec, R. F., & Halawa, S. (2015, March). Attrition and achievement gaps in online learning. In *Proceedings of the second (2015) ACM conference on learning@scale* (pp. 57-66).
- Kraemer, K. (2017). The impact of digital technology in economics education for non-economists: An empirical investigation of student perceptions. *International Review of Economics Education*, 24, 22-35. doi: 10.1016/j.iree.2016.11.001
- Lauren, J. G. (2015). Adoption of raised bed technology in some selected locations of Rajshahi District of Bangladesh. *Bangladesh Journal of Agricultural Research*, 40(4), 551-566.
- Li, M., & Yu, Z. (2022). Teachers' satisfaction, role, and digital literacy during the COVID-19 pandemic. *Sustainability*, 14(3), 1121.
- Mafa, K. R., & Govender, D. W. (2023). Does the use of ICT by Teachers Influence Learners' Academic Performance during the COVID-19 Environment?
- Maness, K. (2014). Teaching media-savvy students about the popular media. *English Journal*, 93(3), 46-51.
- Martin, F., Chen, Y., Moore, R. L., & Westine, C. D. (2020). Systematic review of adaptive learning research. *e-Lit*. 2, 130–136.
- Means, B., & Neisler, J. (2020). *Suddenly online: A national survey of undergraduates during the COVID-19 pandemic*.
- Mehra, S., Anderson, A., Jackson, P., Walls, M., & Tafti, M. (2018). The impact of digital technology-based solutions in promoting students' engagement and retention in economics education. *Journal of Applied Research in Higher Education*, 10(1), 68-86. doi: 10.1108/JARHE-03-2017-0029
- Molefe, N., Stander, J., Chiumya, C. R., & Mba, U. (2019). The effectiveness of digital technology in enhancing students' learning experiences in economics education. *Academy of Accounting and Financial Studies Journal*, 23(6), 1-11.
- Mji, A. & Simelane-Mnisi, S., (2020). COVID-19 pandemic: opportunities for online learning to unblock the minds of students during lockdown period. In *EDULEARN20 Proceedings*. 8621-8629). IATED.
- Mtebe, J., & Gallagher, M. (2022). Continued Usage Intentions of Digital Technologies Post-Pandemic through the Expectation-Confirmation Model: The Case of a

Tanzanian University. *International Journal of Education and Development using Information and Communication Technology*, 18(1), 125-145.

Mustofa, R. F., & Hidayah, Y. R. (2020). The Effect of Problem-Based Learning on Lateral Thinking Skills. *International Journal of Instruction*, 13(1), 463-474.

Nakamoto, S. (2016). Bitcoin: A Peer-to-Peer Electronic Cash System”,<https://bitcoin.org/bitcoin.pdf>

Nisha, B. (2019). The pedagogic value of learning design with virtual reality. *Educational Psychology*, 39(10), 1233-1254.

Olesova, L., Yang, D., & Richardson, J. C. (2011). Cross-cultural differences in undergraduate students' perceptions of online barriers. *Journal of Asynchronous Learning Networks*, 15(3), 68-80.

Patton, D., Parker, M. A., & Stokke, M. (2019). Examining student-focused e-learning during institutional transitions. *Interactive Learning Environments*, 27(7), 961-973. doi:10.1080/10494820.2018.1470116

Pekrun, R. (2006). The control-value theory of achievement emotions: Assumptions, corollaries, and implications for educational research and practice. *Educational Psychology Review*, 18(4), 315-341. doi: 10.1007/s10648-006-9029-9

Pitts, C., Pillow, T., Dusseault, B., & Lake, R. (2022). Virtual Learning, Now and Beyond. *Centre on Reinventing Public Education*.

Rienties, B., Reeb-Gruber, S., Daly, P., van Houten, M., & Van Limbeek, E. (2016). Does a personal formative assessment lead to adaptive learning? An experimental study. *Computers in Human Behavior*, 60, 656-669. doi: 10.1016/j.chb.2016.02.081

Robbins, L. (1932). The nature and significance of economic science. *The philosophy of economics: An anthology*, 1, 73-99.

Schaur, G., Watts, M. T., & Bekker, J., (2022). Do export support programs affect prices, quality, markups and marginal costs? Evidence from a natural policy experiment. *Review of Economics and Statistics*, 1-45.

Sinha, E., & Bagarukayo, K. (2019). Online Education in Emerging Knowledge Economies: Exploring factors of motivation, de-motivation and potential facilitators; and studying the effects of demographic variables. *International Journal of Education and Development using Information and Communication Technology*, 15(2), 5-30.

Smaldino, P. E., & Lubell, M., Timothy M., & Michelle Kline Ann, (2014). Institutions and cooperation in an ecology of games. *Artificial life*, 20(2), 207-221.

- Srichanyachon, N. (2014). The barriers and needs of online learners. *Turkish Online Journal of Distance Education*, 15(3), 50-59. (Luongo, 2018).
- Steele, C. (2019). "What is the Digital Divide? Digital Divide Council". Available at: <http://www.digitaldividecouncil.com/what-is-the-digital-divide/> Tamil Selvan, P., (2022). Mindfulness activities in recent educational technology. *PSYCHO-TECHNOLOGICAL APPROACHES IN HEUTAGOGY*, 44.
- Terantino, J. M. (2011). Emerging technologies YouTube for foreign languages: You have to see this video. *Language Learning Technology*, 15(1), 10 – 16.
- The Council of Independent Colleges, (2016). Embodied digital technology and transformation in higher education. *Transformation in Higher Education*, 3(1), 1-8.
- Turk, S., & Cherney, I. D. (2016). Perceived online education barriers of administrators and faculty at a US university in Lebanon. *Creighton Journal of Interdisciplinary Leadership*, 2(1), 15-31.
- van Wyk, N. (2019). A Proposed Framework for Developing Online Courses: The Case for a VR Course. *Online Submission*.
- Verhoef, A. H., & Du Toit, J. (2018). Embodied digital technology and transformation in higher education. *Transformation in Higher Education*, 3(1), 1-8.
- Wang, Q. H., Woo, H. L., Quek, C. L., Yang, Y., & Liu, M. (2012). Using the Facebook group as a learning management system: An exploratory study. *Br Journal of Educational Technology*, 43(3), 428–438.
- Weinstein, S. N. (2021). Addictive technology and its implications for antitrust-enforcement. *NCL Rev.*, 100, 431.
- YouTube (2013). About YouTube. Retrieved from YouTube website: <http://www.youtube.com/about/on> 2/02/2017.
- Zydney, J. M., deNoyelles, A., & Lamb, R. L. (2019). Exploring student engagement in an online course through instructor-created videos. *Online Learning*, 23(4), 255-274. doi: 10.24059/olj.v23i4.1573.

STEAM EDUCATION AND SUSTAINABLE DEVELOPMENT IN EARLY CHILDHOOD CLASSROOMS OF ZIMBABWE

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Abstract

The nation's capacity to innovate and strive in this modern world of technology depends on producing graduates skilled in Science, Technology, Engineering, Arts and Mathematics (STEAM). STEAM is a potentially new educational powerhouse which includes the integration of all subject matter, making connections across disciplines like environmental social, legal, institutions, political and economic aspects. Philosophically, it seeks to promote teaching that integrates real-world experience, and teamwork with the authentic application of technology and arts. In Zimbabwe, the new curriculum being implemented in schools emphasise the teaching of STEM/STEAM from early childhood education up to the tertiary level. The teaching of STEAM has come at a time when the nation is crafting policies on sustainable development. Given the importance of STEAM and sustainable development in the 21st century, it became prudent to explore ECD teachers' perceptions towards the teaching of STEAM and sustainable development. An interpretivist philosophy guided the methodological design of the study where semi-structured interviews, observations and document analysis were used as methods of collecting data. Purposive sampling was used to select 3 teachers from 3 randomly selected ECD settings (schools). The findings indicate that inadequate resources and poor infrastructure funding hinder the effective implementation of STEAM programs in ECD settings. It has to be adopted gradually since it is a relatively new program. There is a need for highly qualified ECD STEAM teachers in ECD settings who understand what is needed to develop relevant and quality curricula programs which upheld sustainable development.

Keywords: STEAM, early childhood development, ECD settings, sustainable development

Introduction/ Background to the Study

The educational systems in the world seek to achieve the sustainable development goals set by the United Nations Educational, Scientific and Cultural Organization (UNESCO), including the fourth goal related to "the quality of education." In order to achieve this goal, a number of changes must be introduced as part of developing the mentality of policymakers and those responsible for implementing the plan. The nation's capacity to innovate and strive in this modern world of technology depends on producing graduates skilled in Science, Technology, Engineering, and Maths (STEAM) education and sustainable development. STEAM is a potentially new educational powerhouse which includes the integration of all subject matter, making connections across disciplines like environmental social, legal, institutions, political and economic aspects. Likewise, sustainable development originates from the recognition of and concern regarding economic, social and environmental problems (Cheng & Yu, 2022). Both sustainable

development and STEAM education have become important issues in society concerned about the survival and development of mankind (Cheng & Yu, 2022; Perales & Arostegui, 2021). STEAM education provides opportunities for people to acquire the knowledge, skills, values and attitudes that empower them to contribute to sustainable development (Cheng & Yu, 2022). The purpose of STEAM and sustainable development is to provide a quality education that provides the values, knowledge, skills, and competencies for sustainable living and participation in society (Ericksen, 2013). The United Nations Decade for Education (DESD, 2005-2014) has encouraged innovative approaches in education in order to contribute to the societal change towards sustainability through both formal education, non-formal and informal learning settings (Aguilera & Ortiz-Revilla, 2021). It is in no doubt that ECD teachers, who manage early educational settings need knowledge skills and expertise in STEAM education and sustainable development.

In Zimbabwe, the new curriculum being implemented in schools emphasise the teaching of STEM/STEAM from early childhood education up to the tertiary level. The teaching of STEAM has come at a time when the nation is crafting policies on sustainable development. Given the importance of STEAM and sustainable development in the 21st century, it became prudent to explore ECD teachers' practices and experiences towards the teaching of STEAM.

STEAM is an acronym which stands for Science, Technology, Engineering, Arts and Mathematics. It is a philosophy which requires the learner to be at the centre of the experience, making connections across all subjects. STEAM and sustainable development equip learners with skills to become innovators in the ever-changing world. The teaching of STEAM has become inclusive in that learners from many races, genders, and economic backgrounds, students who speak a variety of languages and students from many cultures stand to benefit in the classroom situation. STEAM teaching in ECD classrooms opposes the traditional models of teaching but aims at preparing learners for sustainable development during the fourth industrial revolution (Kim, 2016). As a developing educational model, STEAM exposes young children to a well-rounded education within a sustainable environment (Perales & Arostegui, 2021). STEAM education is one model that stakeholders in education conquer as holding the potential in developing sustainable skills in young learners.

Early childhood education is an important component of sustainable development (ESD) and plays an important and decisive role in the socio-economic, cultural and political development of a nation. The necessary means and ways for Sustainable Development are recognized through education. Some international organizations, such as the United Nations Educational, Scientific and Cultural Organisation (UNESCO) and the World Organisation for Early Childhood Education (OMEP), have also provided support for Early Childhood Education for Sustainable Development (ECESD) (Cheng & Yu, 2022). Based on this context, early childhood education becomes as an important instrument of achieving sustainable development, oriented towards the values and skills of sustainability. In addition, ECD is regarded as the bedrock and foundation of all learning in the life of any child. In Zimbabwe, ECD is a program that provides for the care and education of children from birth to 8 years. The program comprises the Infant school (grades 1 and 2) as well as

ECCA class (3-4 years) as well as ECC B (4-5years). The purpose of the program is to lay a strong foundation base that ensures the optimal acquisition of fundamental skills for subsequent educational levels and lifelong learning (The Curriculum Framework, 2015-2022). Early childhood education (ECE) is the starting point of lifelong education. Given this scenario, it is important to implement the teaching of STEAM and sustainable development in early childhood classes so that learners are equipped with appropriate skills from a tender age.

The world over, countries are at different levels of advancing STEM initiatives. The STEAM approach implemented in Korea is similar to that in the USA with one minor difference in one main aim. In the USA, STEAM is meant to draw students to careers in STEM, but in Korea, the STEAM approach is aimed at developing scientific literacy for all students with the goal of enhancing national competitiveness in economic and technological fields and preparing students for global citizenship through science education (Cheng & Yu, 2022) This Korean goal is to develop human resources in science and technology, nurture 1252 H.-E. Chu et al. creativity, promote 21st century skills and foster an appreciation of STEM subjects at all year levels

Science is a crucial subject that learners should study in ECC centres from early childhood to higher and tertiary education (Ng'asike, 2011; Susanne & Shu-nu, 2014; Andiema, 2016). Science process skills can be regarded as the basic foundation of industrial development and the significant connection between technology and socio-economic development (Bose & Seeto, 2016). This claim is supported by Ntuni (2016) and Haile and Mohammed (2017) who submit that any country that fails to provide good quality science education may quickly find itself the dumping ground for other people's innovations. In this regard, the teaching and learning of science in early childhood is substantiated by numerous studies in many African countries (Ng'asike, 2011; Kitta & Kapinga, 2015; Bose & Seetso, 2016; Mugweni, 2016; Ntuni, 2016). The quest for development in most countries in African research studies has resulted in education policymakers beginning to appreciate the need to support, fund and evaluate the teaching of STEAM for national development.

In Africa, Stem initiatives have been embraced by most countries. In South Africa, children are exposed to technology and engineering activities like computer play, identifying simple machines gears, wheels and pulleys while still young (Singh-Pillay & Naidoo2020). The STEM Education Centre (STEM-Z) of Zambia (2012) reported that ECC teachers should look for opportunities to develop children's understanding of scientific concepts in all content areas. It can be argued that classrooms need to be scientifically accurate and teachers should make sure they encourage and use precise language of science to learners. Tefanidou and Mandrikas (2023) support the argument by highlighting that preschool children begin to develop concepts in engineering as they design, build and test solutions through their play-as they construct sand castles and build cities out of blocks. It, therefore, explains that teachers of young children should be geared towards preparing STEAM classrooms and creating learning opportunities which encourage sustainable development in young children.

The government of Zimbabwe has targeted the development of STEAM skills as a key part of Zimbabwe's long-term human capital objectives (Curriculum Framework for Primary and Secondary Education 2015-2022). The curriculum being implemented in schools advocates for the development of STEAM skills from ECD to tertiary education (Mugweni, 2016). It becomes prudent therefore that teachers align their teaching to meet the STEAM demands

Conceptual Framework

The study was guided by the concepts of sustainable development and STEAM education.

Sustainable development

The **Brundtland Report** of 1987 also called *Our Common Future*, which was published by the World Commission on Environment and Development defines sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” In simpler terms, Kumar and Mohapatra (2021) explain sustainable development as the ability to make development for the present and future generations by finding out the relationship between the three “Es”- economy, ecology and equality. Similarly, sustainability is viewed as a discipline which allows the integration of different dimensions like ecological, economic, and social aspects into all subject areas of the curriculum (Shore, 2021). As an educational programme, sustainable development aims at improving the quality of human life by reducing human dependence on natural and social environments. In addition, Zhan and Fan (2022) postulate that sustainability ensures that all children have access to inclusive and equitable quality resources to participate, be active, and have knowledge of nature, equality, and social justice. To ensure the teaching of sustainable development, ECD teachers should include aspects like nature, economy, inclusivity, equality and ecology and social justice during the teaching of STEAM. The curriculum framework includes the following as cross-cutting themes: the framework emphasises the teaching of cross-cutting themes during the teaching of all subjects in the curriculum. Overall, sustainable development aims to develop in learners the commitment required to build a sustainable society, through saving natural and ecological processes, which would sustain the quality of life both now and in the future. The study explored how the teacher was integrating sustainable development during their teaching. The study also examined how teachers were actively involving learners in participating in their natural environment.

Within the context of teaching and learning, sustainable development becomes the education that seeks to empower young learners to be responsible for creating and enjoying a sustainable future (Zhan & Fan, 2022; Vidella, et al., 2021). The overall aim of teaching sustainable development in ECD classrooms becomes to empower young citizens to act for positive environmental and social change through the learning of STEAM. As such, pursuing sustainable development through STEAM education requires educators to reflect critically on their teaching methods and approaches and embrace new strategies that bring sustainable changes to the lives of learners and community inhabitants.

STEAM education

STEAM is an educational approach to learning that uses science, technology, engineering, arts and mathematics as access points for guiding student enquiry. As a developing educational model from STEM, STEAM represents a paradigm shift from the traditional education philosophy of tests to a modern ideal which values the learning process and not results (Aguilera & Ortiz-Revilla, 2021). The integration of the arts in STEM is vital because it arts enables learners to easily understand and express various STEM ideas through block building, clay manipulating dramatic games, drawing and dancing (Perales & Arostegui, 2021). As an emerging issue in educational research, integration offers new generations a well-rounded education, prepares them for the future and produces experts in arts, humanities and social science (Kartz & Buonincontro, 2019).

According to Awang *et al* (2020) the first letter in the word STEAM stands for science. Several authors have alluded to the importance of teaching science to young learners (Aguilera & Ortiz-Revilla, 2021; Cook & Bush, 2018). Recent evidence suggests that science exposes learners to a variety of scientific investigation activities such as exploration, experimentation, and observation among others (Mugweni, 2016; Vidella, et al, 2021). Children were born curious and they act as investigators who collect information from the environment. They learn through play using their senses to observe, form questions, predict, investigate and discuss their findings. The teaching of science requires a conducive learning environment equipped with relevant learning materials (Mugweni, 2016).

T stands for Technology. Technology refers to any object invented by human beings and uses power to operate (Awang, *et al.*, 2020). In early childhood education, technology refers to tools or objects that assist children to carry out their investigations. The tools include; computers (desktop and laptop), television, radio, tablets, cell phones, and the blackboard. Learners interact with technological tools and it enhances their cognitive development (Aguilera & Ortiz-Revilla, 2021). The existence of technological tools in ECD classrooms becomes crucial.

Third, E refers to engineering. The other purpose of teaching STEAM in ECD settings is to develop natural engineers. Through engineering, learners learn to identify problems and to solve them according to their own creativity. For example, children learn to build a strong house model using blocks (Lego). They learn to make the house base, walls, beams, roof, windows and doors and finally, they combine all the structures to build a house model. Given the purpose and relevance of engineering in ECD classrooms, the study was interested in finding out how teachers were teaching engineering during science lessons.

The letter A in STEAM resembles the word art. Art is a form of sensory exploration and it is active in children (Awang, et al., 2020). Every child possesses the art characteristic which may be used to interpret any situation using symbols to resemble real objects, events or feelings (Perales & Aguilera, 2020). Drawing, role-playing, music and dancing are media for children to express their creative characters. In support of the above, Kim (2016) adds that STEAM education is important because scientists need to develop their communication skills through writing and speaking. The integration of the arts also offers

well-rounded education preparing learners for social and economic uncertainty in the future (Perales & Arostegui, 2021). The study observed how ECD teachers were integrating stories, poems, songs and games in teaching STEAM.

The last letter or the letter M stands for mathematics. Children explore mathematics by identifying quantities large or small, shapes, sizes, sequences and distances of objects. Activities such as identifying similarities and differences, sequencing, measuring and calculating are examples of high-order thinking skills in Mathematics which may be instilled in children.

Research Questions

The study was guided by the following sub-questions:

1. How can teachers effectively teach STEAM sustainable development?
2. What are the current teachers' practices in STEAM teaching?
3. Is there any relationship between STEAM and sustainable development?

Research Methodology

A qualitative approach informed by an interpretivist paradigm was employed in exploring the teachers' perceptions towards the teaching of STEAM and sustainable development. It entailed an in-depth study of a small sample on the phenomenon in its natural setting which was determined by the concept of saturation as the findings were context bound (Simon and Goes 2011). The study involved 3 teachers from 3 different schools who were directly involved in teaching ECD learners. It was also based on the assumption that reality is subjective and is built from the person's life experiences and interactions with the ultimate aim of producing accurate descriptions of aspects of human experiences, concerned with interpreting and understanding texts, which offer rich and deep accounts of phenomenon (Denzin and Lincoln 2011). Compatible with a qualitative study, multiple sources of data were used. A semi-structured face-to-face interview protocol was used to interview 3 teachers to gather the participants' detailed descriptions of their lived experiences. In the process, their behaviours were observed as they responded to questions. This was premised on the fact that in qualitative studies, behaviour and experiences are considered inseparable (Simon & Goes, 2011). Furthermore, teachers were observed teaching science lessons. Finally, document analysis – which entailed scrutinising professional documents – was equally utilised (Denzin & Lincoln, 2011).

Credibility was achieved by triangulating the different databases gathered (Creswell, 2014). Permission and consent to participate in the study were sought and ethical principles of confidentiality and anonymity were adhered to (Marshall & Rossman, 2011). The data gathered was analysed using multiple levels of abstraction, involving analysing it inductively by working from the particular to generalised perspectives through segmentation, codes, categories and themes (Creswell, 2014). To authenticate the data generated, an audit trail and member checking were employed before rich, thick descriptive narratives were reported on based on the participants' voices and the researcher's reflexivity, guided by the intentionality of the study (Gibson & Hanes, 2003). In the process, the researcher bracketed her natural prejudices and biases so that the phenomenon would be experienced anew in an unconventional manner (Simon & Goes, 2011). It was

from these descriptions that the teachers' perceptions of teaching STEAM and sustainable development were unravelled

DISCUSSION OF FINDINGS

The data analysis process yielded the following thematic areas, current teachers' practices in STEAM teaching, STEAM teaching and sustainable development in ECD classrooms, the relationship between STEAM and sustainable development and the challenges that teachers are facing in teaching STEAM in ECD classrooms. The biographical information of female ECD teachers who participated in the study is summarised in Table 1 below:

Table 1: Biographical data of ECD teachers.

Teacher	ECD setting	Age	Professional Qualification	Experience (No of years)
X	A	45	Diploma in Early Child hood Education	4
Y	B	32	Diploma in Early Childhood Education Bachelors' Degree in Early Childhood Development	6
Z	C	52	Diploma in Early child hood in Education	22

The table above shows that the three participants were qualified and experienced to teach ECD classes. Their experience guaranteed honest responses to the teaching and learning of ECD children.

Current teachers' practices in STEAM teaching

The study explored the current teachers' practices and experiences with STEAM teaching. Responses from the participants revealed that teachers had different perceptions about STEAM teaching and learning. Teacher Y from ECD setting A had knowledge about STEM and very little knowledge about STEAM. She responded that she was teaching STEM during science lessons. To her, STEM was science-related and was evident in the schemes of work. The study observed that during science lessons, learners were engaged in activities such as experiments, observation, classification and measuring. Learners were actively involved in these child-centred activities.

Teacher X from the ECD setting B had knowledge about both STEM and STEAM as science disciplines. In order to integrate the A in STEAM, for example, after an experiment she engaged learners in drawing, answering questions or singing. Teacher X, the youngest in age and recently qualified, was quick to add that she encourages young children to explore the classroom environment. It was observed that the learning areas in the classroom were furnished with age-appropriate toys.

Teacher Z, from ECD setting C, with twenty-two years of teaching experience had no knowledge of STEAM. She emphasised developing her schemes from the syllabus and

there was evidence that she was teaching the subject. She said that ECD was all about skill development and mentioned teaching skills such as fine motor skills, gross motor skills, communication, measuring, and coordination among others. She agreed that science was an important subject to be taught in early childhood development.

Due to a lack of knowledge and confidence about STEAM, the two teachers resorted to their traditional ways of teaching. These findings were in line with a few studies carried out in Korea. The studies found that some Korean teachers are not entirely convinced of the wisdom of the Education Ministry's efforts to implement STEAM widely (Chu, et al., 2017). Accordingly, most early childhood educators have a limited understanding of STEAM. They focus mainly on teaching the subject and not the development of relevant skills. The research carried out by Inoue et al. (2016) revealed that only a few Australian early childhood educators had a comprehensive and systematic knowledge of STEAM. Important to note is the fact that teachers' current teaching experiences seem to be related to the teaching and learning of STEAM.

STEAM teaching and sustainable development in ECD classrooms

Data gathered points that despite their varying knowledge about STEAM, they were all teaching science. The subject was being taught as an important subject in the curriculum, for skill development and for learners to explore their environment. The two teachers, Z and Y, agreed they were unaware of sustainable development. Teacher X mentioned that she had attended a workshop in their Province on sustainable development. The inadequate knowledge made her not to confidently teach the subject.

Despite the little or no knowledge on sustainable development by teachers, several researchers however supported that teaching STEAM and sustainable development yielded a cadre who is creative and has entrepreneurial skills to promote development in the community (Shore, 2021; Cook & Bush, 2018). During the interviews, teachers lamented that they needed training on teaching on integrating sustainable development into their teaching. Teacher Z admitted that:

I have heard people talking about sustainable development and global warming issues but I do not have knowledge about it. I thought these are environmental issues which are irrelevant to ECD. I cannot teach a concept that I do not know.

According to Kumar and Mohapatra, (2021), sustainable development depends upon the provision of specialized training programmes to ensure that the implementers have the skills necessary to impart. On the same note Awang, *et al.*, (2020) argue that STEAM teaching and sustainable development are challenging to implement in the absence of clear guidelines prepared by qualified experts.

Relationship between STEAM and Sustainable development

The study observed that though teachers had little or no knowledge about STEAM and sustainable development, there was a relationship between the two concepts. Both concepts equip learners with skills to solve real-life problems. When children learn STEAM and sustainable development they learn to know and understand the world around them through interacting with their surroundings. Teacher X explained that she gives her learners

activities that enable them to explore their surroundings. According to her, exploration assists learners in finding answers about their immediate environment. This is in line with Vidella *et al* (2021) who explain that STEAM teaching exposes young learners to a real-world environment and stimulates their inquisitiveness about life. Young children are born curious and inquisitive, so ECD teachers should tap into these characteristics and give learners activities that develop critical thinking. During guided discovery in science lessons, learners are given opportunities to explore and investigate using their own senses (Awang *et al.*, 2020). Young learners can collect items from the environment, arrange them according to size and shape and observe similarities and differences. By so doing, STEAM encourages children to stimulate the thinking process as they need to inquire questions and find a variety of answers to solving problems. STEM/STEAM and sustainable development are presented as fields of educational development that require integrated teaching to respond to real problems in each community (Vidella, *et a.,l* 2021).

Both STEAM and sustainable development provide opportunities for learners to develop leadership skills, cooperative learning, problem-solving, and collective and teamwork skills towards social and environmental issues (Kumar & Moapatra, 2021).

Challenges that teachers are facing in teaching STEAM in ECD classrooms

One of the challenges that teachers are facing in the implementation of STEAM and sustainable development is inadequate knowledge. Cook and Bush (2018) admit that when teachers are not equipped with a complete guideline on teaching STEAM they may not be able to understand clearly the concept of STEAM and this results in difficulty in STEAM pedagogical practices. In line with this, teachers, too are still challenged to master STEAM pedagogical knowledge (Awang, *et al* 2020).

Inadequate resources

All teachers X, Y and Z, pointed out that there was an inadequacy of resources to teach science lessons, for example, a shortage of computers to teach technology. Teacher X said, *The computer–learner ratio of the computers at this school is 1:10. These are the computers being used by the whole school and the time for technology is also limited. Usually first preference is given to examinable classes like grade sevens.*

Teacher Z mentioned the unavailability of science textbooks. She added that during science lessons, she wants learners to picture-read during science lessons. The student-book ratio was 1:6 and possess challenges for picture-reading. This lack of resources has possibly caused drawbacks in STEAM teaching among teachers (Awang, *et al.*, 2020). Research carried out by Bukalia and Mubika (2012) on the challenges and benefits of early childhood development education in the Zimbabwean education system found that there were inadequate spaces in most ECD classrooms. Most classrooms were not built as per Ministry guidelines on specifications on space.

Overcrowded classrooms

Data gathered revealed that the teachers had an average of 1:45 learners. Teacher Z was teaching 50 learners, teacher X 46 and Teacher Y 47. With this teacher-pupil ratio prevailing in their classrooms, teachers lamented that learners always scramble for learning

materials during lessons. Teacher X added that this ratio made it difficult to effectively teach STEAM because of the lack of free space for learners to move around during activities. Teacher Y added that it was difficult for her to monitor, and control learners during activities as well as effectively supervise an overcrowded classroom of young learners. She added that the classrooms were small and the learners were too many.

Similarly, a study carried out by Samkange (2016) on the management of early childhood development centres found that ECD teachers had classes that had fifty learners. This compromised classroom management by the teacher. As Zhai and Tai (2015) observe, the teacher, as an authoritative figure, is responsible for designing and controlling learners' behaviour during the teaching and learning process. However, large class sizes compromised effective teaching and learning of STEAM and sustainable development. This study, therefore, recommends a teacher-pupil ratio of 1:20 as stipulated in the MoPSE (Ministry of Primary and Secondary) policy documents.

Poor infrastructure

The study observed that infrastructure in some of the ECD classrooms was poor. At the ECD setting C, the tables and benches were too big and inadequate for the learners. The teacher lamented her efforts to advise the school administration on buying proper infrastructure for learners. It was observed that learners were not feeling comfortable on the benches. It was difficult for the learners to write properly and participate in group activities. The centre B, the classroom was also very small. The teacher reported that it was an office which was converted into a classroom due to inadequate classrooms. Though the tables and chairs were age-appropriate, there was inadequate space for learners to move around the classroom. Most of the learning materials were stacked in boxes and sacks because there was no space to display them.

Findings in research carried out by Mawere and Muguti (2015) suggest that there was inadequate provision of appropriate infrastructure and furniture at most ECD centres. In addition, the 2015 study also found that most ECD classrooms in Zimbabwe do not have proper infrastructure.

Inadequate support

The three teachers lamented that they were not getting adequate support from their administration to effectively implement the teaching of science and STEAM in particular. They blamed their management for ignoring most of their demands. For example, they blamed the administrators for overcrowded classrooms citing that they enrol more ECD learners who cannot be accommodated in the small classrooms.

Mahoso and Kuyayama (2014) have also condemned the curriculum of Zimbabwe for being exam-oriented and suggested that the curriculum should focus on learner interaction and sustainable development.

Conclusion

Despite the benefits and advantages of STEAM and sustainable development on learning in early childhood, teachers had limited knowledge of teaching these skills. The teachers' varying knowledge about STEAM and sustainable development is a result of no policy

which speaks on the teaching of these disciplines in schools. Teachers need adequate knowledge and skills to effectively implement STEAM teaching and sustainable development. Kumar and Mohapatra(2021) say that the most effective way for promoting sustainable Development is to awareness and education to all stakeholders. These requirements can be fulfilled when policymakers take a leadership role in sustainable development. STEAM and sustainable development aimed at producing well-rounded learners with all the skills needed in the 21st century (Thibaut, et al., 2018; Zhan & Fan, 2022; Vidella, et al., 2019). The study concludes one of the fundamental goals of teaching STEAM and sustainable development in ECD classes is to develop learners with a strong global competency base. In simpler terms teaching STEAM and sustainable development leads to quality education. Quality education depends on good teachers, meeting education for sustainable development goals and maintaining the values of education (Kumar & Mohapatra, 2021).

The present study concluded that poor and inadequate infrastructure, coupled with crowded classrooms, have detrimental effects on the teaching and learning of ECD learners. STEAM teaching requires teachers to teach using child-centred approaches like guided inquiry, demonstration, discussion and project-based learning. Teachers said that these teaching methods call for learners to explore their environment and instil problem-solving skills. It is therefore important to note that for effective implementation of STEAM in ECD classes, all stakeholders (teachers, policymakers, school administrators and parents) should play an effective role.

References

- Aguilera, D. & Ortiz-Revilla, J. (2021). STEM Vs STEAM Education and Students Creativity: A Systemic Literature Review. *Edu. Scie* 11, 331. <https://doi.org/10.3390/educsci//070331>
- Andiema, N.C. (2016). Effect of child-centred methods on teaching and learning science activities in pre-schools in Kenya. *Journal of Education and Practice*, 7(27), ISSN 2222-1735.
- Asano, Y. (2011). The comparative study of education for sustainable development in early childhood in Sweden and Japan: Through “the environmental epistemological model of 5 aspects”. *Problems of Education in the 21st Century*, 32, 23-32. Retrieved from <https://www.proquest.com/scholarly-journals/comparative-study-education-sustainable/docview/2343810576/se-2>
- Awang, Z., Yakob, N., Hamzah, A., Talling. M.M. (2020). Exploring STEAM teaching in preschool using Fred Rogers approach. *International Journal of Evaluation and Research in Education* (9)4, 1071-1078 ISSN: 2252-8822, DOI: 10.11591/ijere.v9i4.20674
- Bond, H., & Fotiyeva. I. (2010). Leading through collaboration: historically Black colleges and Universities preparing future teacher leaders in Science Education. In J. Rhoton (Ed.), *Science Education Leadership: Best Practices for the new century* (pp.233- 240). Arlington, VA: NSTA Press

- Bose, K. & Seetso, G. (2016). Science and mathematics teaching through local games in preschools in Botswana. *South African Journal of Childhood Education* 6(2), 2223-7682.
- Chen, C., & Yu, Y. (2022). Early childhood educators' practices in education for sustainable development in China: Evidence from Shandong province. *Sustainability*, 14 (4), 2019. doi: <https://doi.org/10.3390/su14042019>
- Chu, H., & Martin, S.N., & Park, J. (2018). A Theoretical Framework for Developing an Intercultural STEAM Program for Australian and Korean Students to Enhance Science Teaching and Learning. *International Journal of Science and Mathematics Education* 17:1251–1266 <https://doi.org/10.1007/s10763-018-9922-y>
- Cook, K., L. & Bush, S., B.(2017). Design thinking in integrated STEAM learning: Surveying the landscape and exploring exemplars in elementary grades. *Integrated Stem Education*, DOI: 10.1111/ssm.12268.
- Eriksen, K. G. (2013). Why education for sustainable development needs early childhood education: The case of Norway. *Journal of Teacher Education for Sustainability*, 15(1), 107-n/a. doi:<https://doi.org/10.2478/jtes-2013-0007>
- Katz-Buonincontro, J. (2018). Gathering STE(A)M: Policy, curricular, and programmatic developments in arts-based science, technology, engineering, and mathematics education Introduction to the special issue of *Arts Education Policy Review: STEAM Focus*. *Arts Education Policy Review*, 119(2), 73– 76. <https://doi.org/10.1080/10632913.2017.1407979>
- Kim, P.W. (2016). The Wheel Model of STEAM Education based on Traditional Korean Scientific Contents, *Eurasia Journal of Mathematics, Science and Technology*, 12(9), 2353-2371, doi: 10.12973/earasia.2016.1263a
- Kumar, G. & Mohapatara, S. (2021). The Role of Education for Sustainable Development. <https://www.researchgate.net/publication/350886560>
- Li, K.-C., & Wong, B. T.-M. (2020). Trends of learning analytics in STE(A)M education: A review of case studies. *Interactive Technology and Smart Education*, 17(3), 323–335. <https://doi.org/10.1108/ITSE-11-2019-0073>
- Mugweni, R.M. (2016). Early childhood (ECD) teachers' conceptions and implementation of the child-centred approach to teaching science. *International Journal of Academic Research in Progressive Education and Development*, 5(4), 2226-6348.
- Ntuni, S. 2016. Challenges preschool teachers face in the implementation of the early childhood curriculum in the Cape of Coast Metropolis. *Journal of Education and Practice*, 7(1), 54. ISSN 2222-1735.

- Perales, F.J., & Aróstegui, J., L (2021). The STEAM approach: Implementation and educational, social and economic consequences, Arts Education Policy Review, DOI: [10.1080/10632913.2021.1974997](https://doi.org/10.1080/10632913.2021.1974997)
- Salkind, N. J. (1997). *Exploring Research*. Prentice-Hall. Pearson.
- Singh-Pillay, A., & Naidoo, J. (2020). Context matters: Science, technology and mathematics education lecturers' reflections on online teaching and learning during the covid-19 pandemic. *Journal of Baltic Science Education*, 19(6), 1125- 1136. doi:<https://doi.org/10.33225/jbse/20.19.1125>
- Shore, M. (2021). Integrating sustainable Development Goals with Early Childhood Learning in Indonesia. *Childhood Education*. 97(1). 68-74.
- Tefanidou, C., & Mandrikas, A. (2023). Science teaching at a distance in Greece: Students' views. *Education Sciences*, 13(4), 395. doi: <https://doi.org/10.3390/educsci13040395>
- Vidella, R., Aguayo, C., & Veloz, T. (2021). From STEM to STEAM: An Enactive and Ecological Continuum. *Front. Educ.* 6:709560. doi: 10.3389/educ.2021.709560
- Wahyuningsih, S., Nurjanah, N. E., Rasmani, U. E. E., Hafidah, R., Pudyaningtyas, A. R., & Syamsuddin, M. M. (2020). STEAM learning in early childhood education: A literature review. *International Journal of Pedagogy and TeacherEducation*, 4(1), 33-44. <https://doi.org/10.20961/ijpte.v4i1.39855>
- Zhan, Z., & Fan, A. (2022). How to promote quality and equity of early childhood education for sustainable development in undeveloped rural areas of china: An evolutionary game study. *Sustainability*, 14 (24), 16438. doi:<https://doi.org/10.3390/su142416438>

POST COVID-19 PANDEMIC EXPERIENCE IN AFRICA: ONLINE LEARNING AS A THREAT TO CONVENTIONAL TERTIARY EDUCATION AND SUSTAINABLE DEVELOPMENT IN NIGERIA

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Abstract

E-Learning is not a relatively new concept in the field of education. Many African institutions from elementary to tertiary institutions adopted the new normal during and after the Covid-19 pandemic. The pandemic has had a lot of adverse effects on the education of students in Africa, especially in tertiary institutions. One of them is that the students continue schooling from home (via online lectures and examinations), majority of the students that couldn't afford it withdraw themselves from school. The wave of the deadly disease is now in its third phase in places like India, Sweden, and Japan. This paper sought answers to the question "Of what use are the gigantic structures and edifices of blocks of classrooms/laboratories on campuses during a pandemic crisis?" If the pandemic lives with us, "Are these edifices not going to be a waste? Then, "Is online education not a threat to traditional/conventional education?" The author reviewed current and related literature on the concepts: COVID-19 and Education in Africa. Findings from the study revealed that advocates against online education tried to put a watershed on it will not work. The study, therefore, concluded that COVID-19 has come to stay with man, which makes online learning the order of the day, a global trend and inevitable. The study suggested that administrators of universities in Africa should invest in "technology" instead of building edifices. Government should ensure the provision of sufficient "energy" which drives technology.

Keywords: Online Education, Online Learning, Conventional Tertiary Education, Post COVID-19 Pandemic, Sustainable Development.

Introduction

E-learning education is the all-inclusive blending of ICT gadgets and modern telecommunication equipment into the education system. Andreas (2020) and Eze et al (2018) maintained that e-learning is a hallmark of distance learning. Digital technology offers entirely new answers to the question of what people learn, how they learn; where and when they learn. Andreas (2020) further stated that technology enables teachers and students to access instructions beyond classrooms, and specialized materials well beyond textbooks, in multiple formats and in ways that bridge time and space. Since each student takes three to five (sometimes more) courses, they experienced multiple modalities of online education, from Zoom meetings to fully asynchronous courses taught via videos

and podcasts. In a recently conducted survey by Efunwole (2021), students described online-mediated lectures as social ways through which knowledge and skills can be acquired. The earlier findings support that of Hansen (2008), who found that online learning is superior to the traditional delivery method of learning. While it's true that the transition was rushed because of the sudden emergence of COVID-19, there are many proofs of viable online classes that ranged from Zoom to fully synchronous classes with all the bells and whistles.

Technology advocates may see online teaching as the best path forward, but one important audience vociferously disagrees. They saw the pandemic as terminal and thus described it as a terrible thing to waste little time in promoting the move to online teaching as a permanent solution to higher education's problems. Tal Frankfurt, a technology consultant, and contributor to *Forbes* magazine, proposed that the emergency replacement of traditional classrooms with virtual ones should "be viewed as a sort of "bypass button" for the usual snail's pace of educational change. Hans Taparria wrote an article in *The New York Times*, that online education, previously considered a "hobby," could be the silver bullet that rescues higher education from the financial ravages of the coronavirus pandemic. Jeb Bush announced that online is "the future of learning," and Governor Andrew Cuomo, with Bill Gates, wondered why we need all these buildings when we have technology? "The old model" of a classroom, the governor opined, is over and done with. It's time to "reimagine" education with computers and laptops "at the forefront" (Andreas, 2020). While both deals with K-12, the proposal to replace "all the buildings, all the physical classrooms" with virtual spaces applies equally well to higher education.

Coronavirus disease (COVID-19) is a deadly disease that led to the total shut-down of schools in about 215 countries all over the world with 91.4% of the total number of enrolled learners in these countries momentarily mandated out of school (UNESCO, 2020). It was accounted that over 1.6 billion students in the world was obliged to stay out of schools as social distancing rule enforced locally and regionally around the world, in order to enclose the extent of coronavirus disease. Besides, the statement showed that the lockdown of schools was added in some continents such as Africa, South America, and parts of Europe (UNESCO, 2020). Universities closed their premises and countries shut down their borders in response to lockdown measures. Findings from 200 countries in mid-April 2020 showed that 94 percent of students were affected by the pandemic around the world, which represents 1.58 billion learners (United Nations, 2020). Additionally, UNESCO (2020) reported that the closure of higher institutions has affected over 91 percent of the population in the world and those 23.8 million students may drop out or not be able to secure admission to schools in the 2021 academic calendar.

Ngugi and Mahaye (2020) discourse that long periods of learning would be lost for as long as the closure lasted. This became evident as different cases of coronavirus victims were recorded daily. Kekic et al. (2016) reported that schools losing long periods of learning because of the disease outbreak can be upshot to both chronological and stable smash up

on the educational system. The temporal damage include disruption of the curriculum which could take a long time to be recovered, while some students may never come again to school even after the infection outbreak has ended. Learning losses extend beyond this generation and erase decades of progress, not least in support of young women's educational access and retention. Despite these challenges, educational organizations have been quick to adopt innovative ways to continue developing the standards. However, the challenges are many, and the way forward needs to be thought through for education's long-time effectiveness. In Namibia, the Executive Director (ED) of the Ministry of Higher Education and Innovation, Dr. Alfred van Kent said "the ministry has realized that face-to-face learning is a no-go area, but to engage all institutions on online platforms" (UNESCO, 2020).

At the early stage of the crisis, Africa Union Commission had instructed member states to observe barrier measures, and to close schools and universities; to stop the spread of the pandemic. African Union also proactively reactivated its Centre for Disease Prevention and Control (CDC). Also, the Virtual Pan-African University E-University (PAVEU), the operational arm of the African Union (AU) supported the movement towards digitalization of Higher Education in Africa. Other efforts made by AU are partnerships with UbuntuNet Alliance (UA), the African Education and Research Network of West and Centre Network (WACREN), the Arab States Network for Research and Education (ASREN) and the National Research and Education Network (NREN). The further launch was made with eLearning Africa and WILEY Education Services to support African universities to accelerate their migration to online education; the call for massive investments to support the development of campus networks and research and teaching infrastructure. UNESCO and International Telecommunication Union (ITU) have initiated an E-Education project in Senegal (United Nations, 2020).

PAVEU as the African Union project is to meet the needs of Agenda 2063 aimed at accelerating the development of human capital, science, technology, and innovation, through increased access to tertiary education. It focuses mainly on online training, blended learning, and free educational resources to offer a real perspective on the development of virtual universities on the continent; by supporting the creation or strengthening of those that exist. The Virtual University of Tunis (Tunisia) is a great experience of virtual university on the continent. UVT was established in 2002, with the mandate to develop university courses and online teaching programmes that will not suffer from the perverse effects of COVID-19, like most Tunisian universities, which were using the training platform in Moodle line. On the contrary, the Virtual University of Senegal (UVS) didn't suffer from the pandemic crisis; it puts its expertise at the service of other universities for the design of online training devices. Created in 2013, the UVS is a response to the massification of Higher Education to the reduction of inequalities of access in Senegal. During the COVID-19 period, the UVS and the Radio Television of Senegal (RTS1), with the assistance of the Ministry of National Education launched, in April 2020, the creation of a television channel dedicated to education, "Learn to Home" to ensure

continuity of lessons for students in areas where there is no internet connection. The Virtual University of Cote d'Ivoire (UVC), created in 2015, is the second successful experience of a virtual university in Africa south of the Sahara. It has served as a capacity-building center for Ivorian universities and educational establishments, which have taken the turn of online training (UNESCO, 2020).

The eruption of COVID-19 has affected every sphere of life and may forever change how we have always lived and conducted our businesses, and no one can resist the wind of change that is blowing. Of all the sectors of governance, the educational sector, particularly at the tertiary level, appears to have been most greatly affected by the pandemic; and therefore requires a more pragmatic approach to resolve (Anifowose et al, 2020). Digital Global Overview Report (2020) described 60 percent of people from Nigeria (a West African country) as not associated with the Internet. The data for mobile phone users, which could also be used as a learning intermediate, are more hopeful. According to the report, around 169.2 million people, 83 percent of Nigerians have the right of entry to mobile phone connections. However, fifty (50) percent, around 84.5 million people, live in municipal areas. For the populace with access, the quantity would be twisted towards elevated socio-economic households and urban households; an awe-inspiring preponderance of whom are private school students who already have a learning benefit over their community school peers. For children from poorer backgrounds who tend to have less access to internet connectivity, computers, and other devices, and reside in rural areas where local languages take dominance over English, ICT-learning uptake is limited.

Sustainable development is a technology that has been explained in different ways by scholars. Ogidi and Ejim (2017) opined that it is an organizing principle for human life on a finite planet that posits a desirable future state for human society in which living conditions and resource use meet human needs without undermining the sustainability of natural systems, so that future generations may also have their needs met. Sustainable development ensures that future generations inherit the earth which supports their livelihood in a way that they are no worse off than generations today. As posited by Oku, Anugwom and Onuoha (2017), sustainable development should be seen as action aimed at ensuring the gradual and continuous growth of something so that it becomes bigger or more advanced. The Hong Kong Environment Bureau (2016) cited the World Commission on Environment and Development (WCED, 1987:43) that the term "sustainable development" is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The goal of sustainable development is to ensure that resources are distributed equitably to improve the living conditions of individuals through integrating economic, environmental, and social resources to improve the quality of life. The United Nations 2030 Agenda for Sustainable Development is a framework of seventeen (17) development goals (SDGs) spanning economic, environmental, educational, and social development (IFLA, 2018). Online Distance Education (ODE) is one of the keys for actualization of the goals.

Therefore, meeting the needs of the future largely depends on how well the provision of social, economic, and environmental needs is balanced.

ICTs in Education in developed countries facilitated the establishment of 100% ICT-based Universities known as Virtual Universities. Here in Africa, very few of our conventional universities are now carrying out their academic activities through one form of ICT or the other (United Nations, 2020). While the urge to embark on e-learning is still a dream to some because the infrastructural facilities are inadequate and weak. The rapid expansion of ICTs in Africa due to COVID-19 offers opportunity to institutions for consideration and use in the administration of online education. While “education is the livewire of a nation”, what then is the future of online education in Africa? Which direction does it pitch to? Collapse or sustenance? Of what use are the gigantic structures and edifices of blocks of classrooms / laboratories on campuses when online instruction is being adopted or fully integrated in institutions? This paper therefore sought to answer the earlier stated questions and came up with suggestions for the way forward.

Statement of the Problem

At the time when huge efforts were being deployed to transform and improve higher education in Africa, COVID-19 pandemic posed danger and destabilized the sector with serious consequences. The closure of educational institutions hampered the provision of essential services to children and communities, including access to nutritious food, affected the ability of many parents to work, and increased risks of violence against women and girls. COVID-19 virus threatens to extend beyond this generation and erase decades of progress, it is not in support of girls' and young women's educational access and retention. The prediction had it that about 23.8 million additional children and youth (from pre-primary to tertiary) may drop out of school in the year 2021 due to the pandemic's economic impact alone (UNESCO, 2020).

Despite the huge effort to cushion the adverse effects of the pandemic on students and staff, part of the problems that originated during the enforced idleness by the pandemic are: in-person classes cancelled, jobs evaporation and shelter-in-place orders, the structure by which many organized their day had disappeared, leaving many students feeling lost and adrift. Thus, online classroom learning was introduced, embraced and adopted by many institutions in Africa.

Online Education (OE) is now a threat to Conventional Education; students prefer it to face-to-face conventional education because of its flexibility (Efunwole, 2021). However, its implementation is capital-intensive. Many parents don't have the resources to provide ICT tools and internet data for their wards, communities don't provide an enabling environment for its effective operations via necessary infrastructural facilities – instead, most members tag children found with ICT gadgets as “Internet fraudsters”. African governments at all levels do not support OE with funds, infrastructural broadband facilities and judicious regulation of implementation policies guiding its operation.

Theoretical Framework for the Study

The infusion of coronavirus (popularly known as COVID-19) disease into the world has changed the narratives of global education and particularly its delivery. This draws attention of stakeholders to the efficacy of Online Distance Education (ODE). Therefore, online teaching and learning demands a fundamental repackaging of the educational experience to mitigate the challenges of the present world full of pandemics. However, this study is based on Sustainable Development Goal (SDG4) which emphasizes quality education as the best approach to achieve objectives of global education in this vulnerable pandemic world through online distant education.

Graham, Henrie and Gibbons (2013) in Picciano, A. G. (2017) reviewed issue of “quality education” as related to instructional technology and recommended a three-part taxonomy that includes theories that:

§ *Explore*: “What exists?” and attempts to define [describe] and categorize;

§ *Explain*: “Why does this happen?” and looks for causality and correlation, and work with variables and relationships.

§ *Design*: “How do I achieve this outcome?” and describes interventions for reaching targeted outcomes and operational principles (Graham, Henrie and Gibbons, 2013, p. 13).

This taxonomy will serve as an overall guiding principle for the discussion of multimodal model on online education, and adopted in this article.

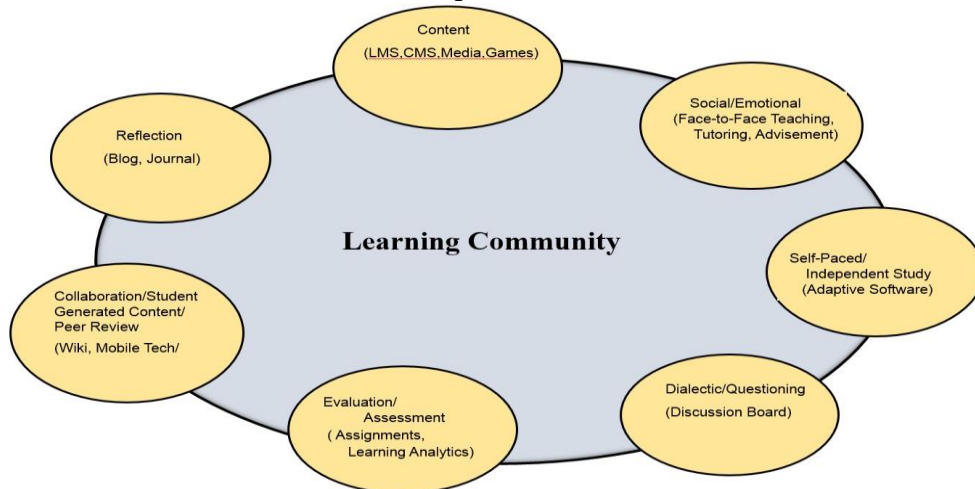


Figure 1. Multimodal Model for Online Education (Garrison, et al, 1991)

The learning theories of the traditional educational philosophies such as behaviorism, constructivism, and cognitivism are considered as the foundation of teaching and learning. These theories do not find direct application in the instructional design of the 21st Century learning space. They have to be tweak to find application in a heavily growing digital learning environment. The learning needs of the 21st Century learner makes demands on online instructors and course designers to restructure the learning practice to accommodate huge volume of contents and ever widening curriculum. The influence of mobile tools and new learning devices in the 21st Century has changed the classroom environment. We are

in the age where theories, practice and real life experiments at a convergence are directly meeting the learners' needs in the classroom.

Pre-Pandemic Experience in Africa's Education Sector

Before the pandemic, the world was already facing formidable challenges in fulfilling the promise of education as a basic human right to her people. Despite the global provision of "Universal Basic Education", more than 250 million children were out of school, and nearly 800 million adults were illiterate in Africa (UNESCO, 2020). Moreover, for those in schools, learning was far from guaranteed. Some 387 million or 56 percent of primary school-age children worldwide were estimated to lack basic reading skills (UNESCO, 2020).

In a study conducted by Rogers and Michelle (2017) on Mobile learning in Higher Education, the findings showed that mobile learning in Africa's higher institutions increased student and lecturer collaboration, provide distance communication, increased student participation and engagement, facilitated authentic learning and reflective practice; as well as fostering learning communities. A significant change in the lecturers' approaches to teaching also occurred. The findings also indicated significant challenges in integrating mobile learning in higher education institutions within Africa as poor technological infrastructure, lack of access to modern mobile devices, lack of mobile learning pedagogical skills among lecturers, poor attitudes among students and lecturers, and incompatibility of mobile devices with the university online management systems. Policies to guide the implementation of mobile learning were also lacking.

Pandemic Lockdown: Experience in Africa's Education Sector

It is not an overstatement to say that Africa is one of the continents in which educational systems have been typically affected by the deadly disease as more than 98% of teaching and learning cannot be performed suitably due to country-wide lockdown in the continent. In the shutting of schools across Sub-Sahara Africa, of which over 91% are primary and secondary school learners. In a short time, COVID-19 has disrupted the landscape of learning in Sub-Sahara Africa by limiting how students can access learning across the country. However, apart from the pharmaceutical interventions and other preventive measures like using face masks, washing hands, and social distancing, which have been the most effective way of minimizing the spread of COVID-19. The effective implementation of social distancing demanded that schools be closed for as long as each government from different countries are certain that the pandemic has been curtailed enough for the safety of learners and teachers (UNESCO, 2020).

In the light of COVID-19 pandemic, UNESCO had earlier launched the Global Education Coalition in March 2020 to ensure that learning never stops even during the lockdown period. In Africa, the COVID-19 plans of UNESCO regional offices were aligned with the priorities defined by the member states, and the regional and sub-regional economic communities, to offer solutions combining online training. Radio and television broadcasts were used to ensure continuity of courses during the COVID-19 health crisis. The digital

divide revealed the limits of Africa's remote areas that benefited from the induced advantages of digital education. In areas with limited connectivity, governments used more traditional distance learning modalities, often a mix of educational television and radio programming, and the distribution of printed materials. Relatively few countries are monitoring the effective reach and use of distance learning modalities. However, estimates indicated variable coverage: distance learning in high-income countries cover about 80-85 percent, while this drops to less than 50 percent in low-income countries. This shortfall can largely be attributed to the digital divide, with the disadvantaged having limited access to basic household services such as electricity, lack of technology infrastructure; and low levels of digital literacy among students, parents, and teachers (UNESCO, 2020).

Because of the doubts of COVID-19 contagiousness in Sub-Sahara Africa, it was envisioned that social distancing and the use of face masks could still be implemented further than the time expected. Therefore, the Department of Education postulated a steady reopening of schools which was described as a “Phasing in Approach” in South Africa (HEDCOM, 2020). In Egypt, the Supreme Council of Universities directed all students to continue their study via distance learning until the end of April 2020.

According to UNESCO, 9.8 million African students experienced disruption in their studies due to the closure of higher education institutions. The danger of contamination triggered institutions to move their courses online, among which is Ajayi Crowther University, Nigeria. However, going online was not that simple on a continent where only 24% of the population has access to the internet, and poor connectivity, exorbitant costs and frequent power interruptions are serious challenges. Increasingly, universities were partnering with internet providers and governments to overcome this crucial challenge via negotiation of zero-rated access to specific educational and information websites, as in the case of Rwanda, South Africa, and Tunisia. At the institutional level, several universities, such as the public University of KwaZulu-Natal in South Africa and private universities such as Ashesi University in Ghana did offer data bundles to their students and staff.

As beneficial as online learning during pandemic, one student put it, “I now lived in a world of uncertainty, with no clear end in sight. For some, there are the distractions of having to live at home, sharing space and computer time with parents and siblings, and not forgetting pets. Taking online classes also means that the distractions of the web are right before their eyes. “The major benefit of in-class learning is that the classroom leaves out distractions,” writes one student, but now, “I have the biggest source of gaming, shopping and socializing right in my face.” However, there is a more profound reason for their dislike of online learning, and ironically, it is human physical interaction.

Post-Lockdown Pandemic Experience in Africa’s Education Sector

The COVID-19 crisis and its unparalleled adverse effects on education are still far from over. Thus, governments, unions, parents, and children are grappling with when and how to approach the next phase (UNESCO, 2020). Nigeria’s Sunday Punch Newspaper of May 9th, 2021, has its major caption as “COVID-19: Ruthless South Africa variant hits Ghana,

Togo, 21 others, says WHO”. In Nigeria, COVID-19 update had 165,055 as cases, 155,041 discharged and recorded 2,063 deaths between year 2020 and 2022.

The Presidential Steering Committee (PSC) on COVID-19 reviewed the response to the deadly disease in Nigeria on 10th May 2021. In light of the rising trend in several countries and the high risk of a surge in cases in Africa, the PSC took a precautionary step by restricting travel from three countries: Brazil, India and Turkey – where there was a high incidence of cases, high fatality rate and widespread prevalence of variants of concern. In the education sector, the directive has it that all mandatory non-pharmaceutical interventions must be observed. Schools with accommodation facilities should make use of approved Ag-Rapid Diagnostic Test (RDT) as recommended in the guide for COVID-19 RDTs in Nigeria (NCDC, 2022).

COVID-19 Pandemic Effects on Tertiary Education in Africa

The outbreak of the global pandemic, COVID-19, has negatively impacted higher education across the globe. It has had a significant impact on higher education cooperation between India and Africa (UNESCO, 2020). Despite this, educational organizations have been quick to adopt innovative ways to continue developing the standards. Sharing ideas from different perspectives is critical to evolve these strategies and action agenda.

The eruption of COVID-19 has affected every sphere of life and may forever change how we have always lived and conducted our businesses, and no one can resist the wind of change that is blowing. As of 29th June 2020, Sub-Sahara Africa has reported 382,190 cases of COVID-19. In rejoinder to the virus epidemic, several Sub-Sahara African governments implement the resolution to slam learning institutions to enclose the infection. Consequently, the advanced schooling institutions are obliged to reorganize their loom, become more digitally inclined, and changing to online platforms (Anifowose et al, 2020).

Covid-19 further caused serious disruptions’ to how students are evaluated. In most African countries, exams were postponed; cancelled or replaced by continuous assessment or alternative modalities. In a few African tertiary institutions, exams were conducted online. Innovative continuous assessment methods have received a strong attention. Students’ progress can be monitored with mobile phone surveys, tracking usage and performance statistics from learning platforms and apps, and implementing rapid learning assessments to identify learning gaps. Every solution has its challenge, notably in terms of equity.

In conclusion, the World Coalition for Education have presented their offers and pledge to help universities. UNESCO also promised to do its utmost to contextualize these service proposals with and with the support of African Union member states.

Challenges and Prospects of Online versus Traditional Education

The major advantage of online learning is asynchronicity, or, “anytime, anywhere learning.” Lectures do not take place at a specified time but are recorded as videos or podcasts for learner’s access at their convenient time and comfort zone. Assignments are done on a computer, often graded by a computer. Not being tied to a classroom also means no limitations on enrollment. Class size is no longer limited by room size but can grow to accommodate any number of students. What this means in practice is that each student takes the class alone. There is no immediate interaction between the professor and the students, no immediate interaction among the students. It’s just a student sitting in front of a screen. More than one student complained they were not getting their money’s worth. One of them said, “I do not pay the hefty tuition for online classes”; “I feel for all the students paying thousands and thousands of dollars to attend online school when in reality they are stuck behind a computer screen.” A student was more specific: a prerecorded video “is by far the least efficient and beneficial mode of learning. Prerecorded videos give students no room to ask questions or engage in class discussion.” It’s like paying tuition to watch YouTube videos.” Ironically, students reaffirmed Plato’s criticism of writing over a face-to-face discussion. If you ask an inanimate object, in this case, a piece of writing or a painting, a question, Socrates says, you don’t get an answer. Instead, it goes on “telling you just the same thing forever.” Ask a video a question, or a podcast, and you will not get a response. You can’t engage it in dialogue, and as Socrates says, it’s in dialogue -- teasing out of ideas, challenging them, argument and counterargument -- that genuine education happens.

The key point that gets reiterated in every response: students missed human interaction. The central difference is that during a regular semester, “the lessons are in-person, and not on a screen. This is important because it helps students pay attention when the teacher is in the same room with them. Students understand more what is being explained and discussed when they can see their body language, and it’s more of a personal experience.” The transition from face-to-face to online removed the opportunity to learn “from other students,” and breaking into smaller groups or commenting on each other’s writing was no substitute for the real thing. In a traditional classroom, “there is this level of intimacy that just cannot develop in an online setting. The college experience is truly about making human connections. Schools, one student insightfully noted, “are like small towns. There are so much more than just classrooms, and to have classes go online, that takes away so much from the student experience.” The farther a class got from face-to-face, the fewer students liked it, and the less they got out of it. Conversely, the closer a class got to approximate the traditional classroom, the better.

Students preferred Zoom classes (for all their drawbacks) for two reasons. First, turning classes into Zoom meetings that started and ended at the same time as the regular class helped “restore some type of balance and structure” to their lives. One student said that she “was grateful for the normalcy that the recurring class meetings” gave her. But more profoundly, Zoom restored, if in a lesser form, the conversations, the back-and-forth, and the human interactions of the traditional classroom. Because students can talk to each other

and the professor in real-time, “it feels more personal. I found myself more willing to answer and participate.” This student summed it up best: “Some of the best courses I have taken during my time in college have been the ones that are small, and where the professor and students develop a sense of trust with one another. This trust can only be attained by person-to-person contact. There is this level of intimacy that just cannot develop in an online setting. The college experience is truly about making human connections. Zoom is not perfect. The sound can be terrible, and there are serious privacy issues. But for all its problems, zoom helps restore the “human connections” missing from virtual classes, which is why several students said that everyone’s camera should be on during the session. The point is not just to hear, but to see, each other.

Having gone virtual once, and experienced different modalities, there is no desire, no groundswell, to make the change permanent. If anything, both students and faculty want to get back to the traditional classroom as quickly as possible now that they have experienced both. To be sure, online teaching has its place, especially for students who could not otherwise attend college, and given the health risks, it’s how we need to teach until there’s either a cure or a potent vaccine for COVID-19. However, the crisis has stimulated innovation within the education sector. Innovative approaches in support of education and training continuity from radio and television houses to take-home packages. Distance learning solutions were developed as quick responses by governments and partners all over the world, including UNESCO via the Global Education Coalition. Many teachers fear that when the pandemic recedes and normality returns, administrators will try to keep as many classes online as they can.

Conclusion

For stakeholders in education to be assertive and aversive, consistent proffering of solutions to the pandemic problem is inevitable, the major step / responsibility of which is the effective use of online infrastructural facilities as the best option for education delivery; despite its shortcomings.

From the foregoing reports and discussions, the following can be deduced:

- The COVID-19 pandemic has come to stay in the world, and its consequences will be felt for years to come.
- The establishment of virtual institutions/education outfits is on the increase in Africa.
- Going digital effectively requires substantial coordination with, and swift support from, institutional and national service providers, regional entities, international partners, NGOs, the private sector, and ICT providers to rally behind.

Recommendations

1. Government should make it a policy / law that will gradually turn Nigerian Universities and other African tertiary education outfits into virtual institutions. Whether Africa likes it or not, now is the technology age; when everything is E-s.

2. The various stakeholders should look at measures to keep teaching, evaluating and carrying out research in the higher education sector.
3. Heads of higher institutions of learning should put in place a digital-learning mechanism and infrastructure that will enable students to study effectively.
4. Parents should be supportive of their wards in the areas of funding data with airtime and a conducive enabling environment for learning at the places of abode.
5. Government should constantly enhance and upgrade the national satellite server's broadband for wider coverage, while the network service providers make the signal consistently strong, available, and affordable to subscribers.
6. It is imperative for the teaching profession to engage in innovative training constantly on the new methods of education delivery because the increase in virtual institutions shall disengage some workers.
7. Stakeholders in education should henceforth invest in "technology" and not in the erection of gigantic edifices / lecture theatres.

References

- Andreas, S. (2020). The impact of COVID-19 on education – Insights from education at glance. *OECD*, 31.
- Anifowose, O., Aborode, A. T., Ayodele, T. I., Akinjo, R. I., & Ogunjemilua, O. D. (2020). *Impact of COVID-19 on Education in Sub-Saharan Africa*. Researchgate. <https://www.researchgate.net>
- Digital Global Overview Report (DGOR), (2020). *Education in Africa: Challenges and Solutions through ICT, Online Training, Distance Education and Digital Inclusion*. May 14 and 19.
- Efunwole, G. O. (2021). Adoption of online education in selected first-generation south-west Nigerian universities during COVID-19 pandemic: Assessing the constructivism and learners' perceptions. *Adekunle Ajasin University Journal of Science and Technology Education*, 3(2), 87-97.
- Environmental Bureau (2016). *The Government of Hong Kong Climate Change Report*. <http://.edp.gov.hk/eindex.html>. Retrieved 19/6/2020.
- Eze, S. C., Chinedu-Eze, V. C., Bello, A. O. (2018). The utilization of e-learning facilities in the educational delivery system of Nigeria: A study of M-University. *International Journal of Educational Technology in Higher Education*, 15 (34), 1-20.
- Graham, C. R., Henrie, C. R., & Gibbons, A. S. (2013). Developing models and theory for blended learning research. In A. G. Picciano, C. D. Dziuban, & C. R. Graham (Eds.), *Blended learning: Research perspectives, volume 2*. New York, NY: Routledge.
- Hansen, D. E. (2008). Knowledge transfer in learning environments. *Journal of Marketing Education*, 30(2):93-105.

- IFLA (2018). Libraries, development, and the United Nations 2030 Agenda: How do libraries further develop? Retrieved from: www.ifla.org/libraries-development
- The Head of Education Committee -HEDCOM. (2020, April 11). *South Africa: Framework for a curriculum recovery plan – post COVID-19*.
- Kekic, D., & Miladinovic, S. (2016). *Functioning of educational system during an outbreak of acute infectious diseases*.
<https://www.researchgate.net/publication/309728224>
- NCDC (2022). COVID-19 Situation Report. [covid-19.ncdc.gov.ng>files>sitreps](https://covid-19.ncdc.gov.ng/files>sitreps)
- Ngogi, E. M., & Mahaye, I. (2020). *The impact of COVID-19 Pandemic on education: Navigating forward the pedagogy of blended learning*. University of Pretoria, South Africa, 5, 4-9.
- Ogidi, M. & Ejim, O.O. (2017). Citizenship education and sustainable national development in Nigeria. *Nigeria Academy of Education Proceedings*, 86 - 97.
- Oku, O.O. & Anugwom, F.O. (2017). Inclusion of peace education in teacher education curriculum: The needful for Nigeria's sustainable development. *Nigeria Academy of Education Proceedings*, 236 - 243.
- Picciano, A. G. (2017). Theories and frameworks for online education: Seeking an integrated model. *Online Learning*, 21(3), 166-190. doi: 10.24059/olj.v21i3.1225
- Rogers K. & Michelle P. (2017). *A systematic review on mobile learning in higher education: The African Perspective*. The Turkish Online Journal of Educational Technology. Vol. 16 (1), 1-18.
- UNESCO, (2020a). *The Response of Higher Education to COVID-19 – Higher UNESCO, Global Education Monitoring (GEM) Report, 2020: Inclusion and education: all means all, 2020*.
<https://unesdoc.unesco.org/ark:/48223/pf0000373718>.
- United Nation, (2020). *United Nations, “Policy Brief: The impact of COVID-19 on children”*. https://unsdg.un.org/sites/default/files/2020-04/160420_Covid_Children_Policy_Brief.pdf.
- UNESCO, (2020b). *United Nations, “Policy Brief: Education during COVID-19 and beyond”*. <https://docs.google.com/document/u/0/d/1RodblU8lgRSTB5rSLH-2Tyg6yMgtZIJl1nhJxfPiWO/mobilebasic?pli-1>
- World Commission on Environment and Development - WCED (1987). *Our common future*. New York: Oxford University Press.

FOUNDATION ISSUES IN EDUCATION

DO SOUTH AFRICAN UNIVERSITIES CAPACITATE STUDENTS TO MEANINGFULLY CONTRIBUTE TO THE REALISATION OF AGENDA 2063?

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Abstract

Globalisation, digitalisation, and modernisation of economies have affected the world in ways that continuously destroy the planet's climate, landscapes, economies, humans, and animals that occupy the world. The article explores strategies that could be used to ensure that learners and students are empowered to be change agents towards sustainable development. The study adopted a qualitative research method where secondary sources were reviewed. These sources included journal articles, books, newspaper articles, speeches, and electronic media. The researchers did a review of university websites and followed a phenomenological method by interviewing students from two universities in the country to capture their lived experiences. The researchers found that most South African universities do offer Education for Sustainable Development in their curriculum and that they have adapted their organisational structures to meet Agenda 2063 and Sustainable Development Goals. The study also found that what is lacking, is reaching out to students outside lecture halls through co-curricular programmes to facilitate learning in Education for Sustainable Development. The researcher recommends that the Department of Higher Education should insist on a co-curricular training programme on Education for Sustainable Development for universities and colleges in general. The researcher concludes that unless universities introduce structured co-curricular programmes geared towards attainment of sustainable development goals, Vision 2063 will not be realised.

Keywords: Globalisation, planet, sustainable development, co-curricular, goals.

Introduction

Globally there have been developments to ensure that sustainable development is mainstreamed within the higher education sector. Such attempts have been based on the two major appeals that are embedded in education for sustainable development. These are; "the power to ensure that governments keep their commitment to implement the [Millennium Development] Goals". Secondly, "the value of providing a systems approach lens that will help students develop a well-rounded understanding of how global challenges need to be addressed." (Grund, 2020). More than ever before, there is now greater realisation that achieving the Sustainable Development Goals (SDGs) cannot happen if governments work in silo, the task requires partnership of governments, private sector, civil society, and citizens alike (Thunberg,2020). The need for sustainable development is underpinned by the increasing levels of greenhouse gases and pollution. These have placed the world on the precipice of catastrophic climate change. Given their unique standing as beacons of hope and "factories for future greatness, universities have a leading role to play in sustainable development. Initiatives like the UI Green Metric World Universities Rankings play a pivotal role in ensuring that globally, universities take Education for

Sustainable Development seriously. The categories used to rank the most environmentally friendly universities are setting and infrastructure, energy and climate change, waste, water, transportation, education and research (Lawlor, 2022).

Agenda 2063 is a living document and a flexible instrument that stands to be adjusted according to the exigencies that prevail at a particular point in time. One of the steps in making Agenda 2063 ‘a living document and a flexible instrument’ is embedded in the blue print of the Agenda. The policy organs of the African Union tasked the African Union Commission and African Union Development Agency-NEPAD to coordinate and prepare biennial performance reports. This allows for adopting the implementation plan according to results of ongoing evaluations (AU,2020). The second step was the fact that the implementation of Agenda 2063 is done through national and regional development strategies. This therefore allows space for flexibility and making sure that Agenda 2063 is a living document (AU, 2063). The African Union leaders are continuously working towards harmonising the Agenda with the Global Sustainable Development Goals to ensure a meaningful impact. The continent faces serious challenges in its attempts to realise the Agenda. Several if not most economies on the continent are fragile, whilst the infrastructure continues to be underdeveloped. On the other hand, most African economies still rely on raw materials. The number of people who live below the poverty line remains high. Inequality continues to be high with the United Nations declaring that six of the ten most unequal countries in the world are African (Cle, 2017). African universities face these realities in their purpose of research, teaching and community engagement, as they must be positioned to develop active global citizens capacitated to contribute towards the realisation of Vision 2063. The paper pursues to answer the question of How can universities contribute towards capacitating young leaders for meaningful contribution towards the realisation of vision 2063?

Methodology

The researchers adopted a qualitative research design whereby interviews were conducted. According to Braun & Clarke (2006: 2), qualitative research is a “method for identifying, analysing, organizing, describing, and reporting themes found with the data set.” The authors adopted a phenomenological approach by conducting interviews to understand the lived experiences of students (at selected universities) on sustainable developmental. The use of phenomenology in the study was to ensure that the researchers are able to describe the essence of the phenomenon by exploring it from the perspective of the people involved (Neubauer, Witkop, & Varpio, 2019). Thematic analysis was used to analyse data by organising the collected data into codes. To ensure that the analysed data met the trustworthy test, the researchers acted in accordance with what (Nowell et al, 2017: 1) suggest in positing that “qualitative researchers must demonstrate data analysis has been conducted in a precise, consistent, and exhaustive manner through recording, systematizing and disclosing methods of analysis”.

Literature Review

Education for Sustainable Development

O’Flaherty and Liddy (2018: 1031) suggest that the deliberate educational interventions that focus on teaching development education and education for sustainable development

play a significant role in engaging students and departments in efforts towards sustainable development. The authors also argue that the ripple effect of such educational interventions will be global citizenship and the building of “skills of analysis and understanding, empathy and efficacy, as well as promoting sustainability and justice.” (O’Flaherty & Liddy, 2018: 1032). This is a view that is also embedded in international policy developments that include the United Nations Decade of Education for Sustainable Development (UNESCO, 2012).

Sustainable Development Goals

The Sustainable Development Goals are a collection of 17 Goals agreed upon in 2015 by the 193 countries that make up the United Nations Organisation. The target date agreed upon for completion is 2030. The SDGs are a call-to-action for people across the globe to attend to five critical areas of importance: people, planet, prosperity, peace, and partnership. Taken together, the goals are not stand-alone aspirations but rather influence each other and are connected to each other (United Nations, 2015; Kleespies & Dierkes, 2022 &). The United Nations (1987: 204) defines sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

Vision 2063: The Africa We Want.

In their jubilee celebrations of the establishment of the OAU (AU), the African Heads of State signed the 50th Anniversary Solemn Declaration as an affirmation of their commitment to attainment of Africa’s inclusive and sustainable growth and development (African Union, 2020). Agenda 2063 was is a strategic path towards the realisation of the African Union’s Pan African vision of “An integrated, prosperous and peaceful Africa, driven by its own citizens, representing a dynamic force in the international arena”. For the purpose of this article, the authors selected only five AU Goals & Priority Areas of Agenda 2063 that are mostly relevant to the universities. These are:

Goal Number	Goal	Priority Area
Goal 2	Well Educated Citizens and Skills revolution underpinned by Science, Technology and Innovation	Education and STI skills driven revolution
Goal 11	Democratic values, practices, universal principles of human rights, justice and rule of law entrenched	Democracy and good governance Human rights
Goal 12	Capable institutions and transformative leadership in place	Institutions and Leadership Participatory Development and Local Governance
Goal 17	Full Gender Equality in Spheres of Life	Women and Girls Empowerment Violence & Discrimination against Women and Girls
Goal 18	Engaged and Empowered Youth and Children	Youth Empowerment and Children

The implementation of Agenda 2063 is done through five phases of Ten-Year Implementation Plans. These Implementation Plans are aimed at identifying priority areas and setting specific targets for the priorities, coupled with defining strategies and policy measures for implementation. The First Ten-Year Implementation Plan is underpinned by

15 flagship projects and runs from 2013 to 2023. The most relevant flagships to the article are flagship 4 & 15:

Flagship No.	Flagship
Flagship 4	The Pan-African Virtual and e-University (PAVU). This Flagship project is intended to accelerate development of human capital, science, technology and innovation in Africa.
Flagship 15	The Encyclopaedia Africana was added to the list of Flagship projects by the 2019 AU Summit to systematically document the

Universities and Sustainable Development

“The 17 SDGs are part of the United Nation’s sustainable agenda aimed at ending poverty, protecting the planet and ensuring prosperity by 2033.” (www.eua.ed/downloads/publications/universities-and-sustainable-development-towards-the-global-goals.pdf) The SDGs are an international framework for concrete action having been adopted by 193 countries in 2015. In line with Goal 4 & 9, universities do provide cutting-edge research, quality education, and ground-breaking innovation. In addition, in line with Goal 16, universities are a pivotal part of civil society and therefore better placed to facilitate local and global partnerships as envisaged in Goal 17. The interventions and contributions by universities in these four Goals place them in a good position to contribute towards the achievement of all other goals (El-Jardali, Ataya, & Fadlallah, 2018). Amongst the many roles played by universities, is also supporting students to develop a rigorous scientific acumen, a sense of curiosity, and entrepreneurship highly needed in producing solutions required for sustainable development. At a global level, some universities are already involved in the SDGs through UN-supported initiatives like the Higher Education Sustainable Initiative, the Principles of Response Management Education initiative, and the Sustainable Development Solutions Network. The challenge becomes how to ensure that universities in Low and Middle-Income Countries (LMICs) also play an intentional, pro-active and leading role in Achieving SDGs (El-Jardali et al, 2018). In South Africa, there are attempts by universities to facilitate the achievement of the SDGs and of Agenda 2063. This could be seen from the fact that five South African universities are signatories to the Tallories Signatories Declaration List. There were 520 signatory institutions as of September 2021. In addition, some universities have divisions dedicated to research, technology, innovation and partnerships. One such university is the Cape Peninsula University of Technology with a Deputy Vice Chancellor: Research, Technology, Innovation and Partnerships. Some universities are also offering senior degrees focusing on sustainable development. Examples are; University of Johannesburg offering Master Sustainable Urban Planning and Development, University of Stellenbosch with Master Sustainable Development and University of Cape Town with M. Phil. Environment, Society and Sustainability. The Central University of Technology has a Centre for Applied Food Security and different other units positioned to accelerate sustainable development. This signals the intention and commitment of the following universities (CPUT, website; Peninsula University of technology, CUT, website, RU, website, UCT, website, UJ, website & Wits, Website) in realising Agenda 2063.

Findings and Discussions

Well configured and responsive university structures

Is your university positioned to drive the implementation and realisation of Vision 2063?

Most South African universities have embedded sustainable development in their governance hierarchy. This helps to ensure that the implementation of Vision 2063 and Sustainable Development Goals does not fall through the cracks. Literature reviewed, reflects that most universities have placed issues of sustainable development as a senior management responsibility. This can be seen at the Cape Peninsula University of Technology and at University of Johannesburg as examples of the point made above. At senior management level, CPUT has a position for a Deputy Vice-Chancellor: Research, Technology, Innovation and Partnerships. When the questionnaires were administered, one of the participants responded that;

“The most telling factor on how our university is positioned to drive Vision 2063 is the fact that issues of sustainable development are driven at senior management level. This is done through the office of the Deputy Vice Chancellor responsible for research, technology, innovation, and partnerships.”

Another participant, at a different university responded that;

“Our university offers an academic programme on sustainable development at Masters level. These are people who are trained to be thought leaders, opinion makers, and influencers in the space. This is a huge step towards developing foot soldiers and champions for the implementation of Vision 2063.”

There is an ever-increasing number of South African universities that offer academic programmes on sustainable development goals. This is a sure way of ensuring that there is a corps of young future leaders who are grounded on the vision for a peaceful, inclusive, sustainable development and growth on the continent.

Evidence of national and global collaborations

Is the university involved in any partnerships to advance Vision 2063?

There is evidence to suggest that South African universities are serious about the realisation of Vision 2063 and the global Sustainable Development Goals. The fact that Rhodes university, and other universities are part of a global network is proof of that. There are five universities (Rhodes universities, University of Cape Town, University of Natal, University of the Western Cape, University of Witwatersrand) that are part of the Tallories Declaration Signatories List and that points to the commitment to form partnerships. Furthermore, in 2022, the University of Pretoria launched the Sustainable Development Solutions Network (SDSN). The purpose of the network is to mobilise and support South African universities and other leading institutions to work towards the realisation of the SDGs, and to support the country’s contribution to the goals globally (UP, 2022). This is in line with the prescripts of the National Development Plan where it suggests that:

“Research and development should be significantly expanded. Collaboration across the South African education system and with internationally accredited institutions should lead to higher levels of innovation.” (National Planning Commission, 2012).

Another participant who is a senior university student interviewed commented that:

“Yes, there are many areas where the university is involved in partnerships. The first level of these is at inter-university level where our university where is playing a prominent role in sector organisations like the Association of College and University Housing Officials-International South African Chapter (ACUHO-I SAC) and NASEV where best practices on issues of sustainable development are shared and replicated. The university is also involved in community engagement programmes where it fosters mutually beneficial collaborations with communities on sustainable development.”

Whilst on the other hand an SRC member participant, commented that:

“Our university is involved in many partnerships on sustainable development. These include co-hosting conferences and seminars with prominent individuals, other institutions, and research institutions with similar interests.”

Lack of co-curricular programmes on sustainable development

Does the university offer a co-curricular programme to reach most of or all the students at the university?

From data collected, it became abundantly clear that most universities in the country do not have a clear, structured, and assessed co-curricular programme on sustainable development. Involvement in sustainable development programmes by students is optional leaving activism in the space open to those who already have knowledge. This leaves a large number of students outside the scope of influence on issues of sustainable development. Most concerning is that students who are mostly left out are those from remote areas, from low-income backgrounds, and generally from low educational backgrounds. One participant from the targeted universities responded that;

“The university does not have a structured co-curricular programme that targets all students of the university. The only thing close to that are programmes that happen through the Green Team for its own members.”

Whilst on the other hand, another participant from another university commented that;

“There are campaigns and projects aimed at raising awareness on sustainable development, but I doubt that these qualify to be called a co-curricular programme. These programmes are sometimes unaligned with each other and seem to be duplication with very little impact.”

Different universities have adopted different programmes to support the realisation of the global SDGs and Vision 2063. UWC, for an example, has the UWC Green Campus Initiative with its main objective being to promote environmental sustainability initiatives. The initiative has the following focus areas: Awareness and behaviour change programmes, energy conservation and efficiency, food and dining, green building and purchasing, habitat management and restoration, recycling and waste reduction, water conservation, student residences, student organisations, transportation, knowledge enhancement, community development, & recreation and climate justice. UCT on the other hand also has a Green campus initiative which is an action-based organisation of students and staff. Its main objective is to ensure that UCT becomes a sustainable and environmentally friendly institution. This is done through awareness creation, recycling, events, and partnerships.

Conclusion

South African universities have covered a lot of ground in putting measures in place to make sure that they become enablers for the realisation of Vision 2063 and for mainstreaming sustainable development. There is however no compelling evidence to indicate that the majority of students are taken on board in raising awareness and in making student leaders in particularly motive forces for the implementation of Vision 2063 and the realisation of the global Sustainable Development Goals.

Recommendations

The recommendation is that universities should commission their Student Affairs departments to develop structured sustainable development co-curricular programme with clear assessment tools. The co-curricular programme should be a non-credit bearing module mandatory for all university programmes. This should be an on-line module that all first years need to complete before the end of academic term. It is also recommended that issues of sustainable development be a permanent agenda feature in all meetings of student societies starting from the Student Representative Council (SRC). These actions would make sure that all university students grapple with aspects Vision 2063 during their student days.

References

- African Union. (2020). Agenda 2063 and SDGs Implementation in Africa, South Africa March.
- African Union. (2020). First Continental Report on The Implementation of Agenda 2063, Johannesburg, South Africa. Au.int/sites/default/files/documents/38060-doc-agenda_2063_implementation_report_en_web_version.pdf
- African Union. (2022). Second Continental Report on The Implementation of Agenda 2063, Johannesburg, South Africa.
- Bowmik, J., Selim, S., & Huq, S. (2018). The Role of Universities in Achieving the Sustainable Development Goals, CSD-ULAB and ICCCAD Policy Brief, ULAB, Dhaka.

- Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology, *Qualitative Research in Psychology*, 3, 77-101.
- El-Jardali, F., Ataya, N. & Fadlallah, R. (2018). Changing role of universities in the era of SDGs: rising up to global challenge through institutionalising partnerships with government and communities, *Health Research Policy and System* 16, 38.
- Grund, L. (2020). How Can Universities Meaningfully and Effectively Use the SDGs?
- Lawlor, D. (2022). The most sustainable universities in Europe 2022, *Study.eu*, 12 January.
- National Planning Commission. (2012). National Development Plan Our Future – make it work, Accessed: 20/01/2023 at www.gov.za/issues/national-development-plan-2030.
- Neubauer, E, B., Witkop, T, C., & Varpio, L. (2019). How phenomenology can help us learn from the experiences of others, *Perspectives on Medical Education*, 8 (2): 90-97.
- Nowell, S, L. Norris, M, J. White, E, D. & Moules, J, N. (2017). Thematic Analysis: Striving to Meet Trustworthiness Criteria, *International Journal of Qualitative Methods*, Volume 16: 1-3.
- O’Flaherty, I. & Liddy, M. (2018). The impact of development education and education for sustainable development interventions: a synthesis of the research, *Environmental Education Research*, 24:7, 23 October.
- Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators (E/CN.3/2016/2/Rev.1), Annex IV
- Thunberg, G. (2019). Speech at the UN’s Climate Action Summit, 23 September.
- UNESCO. (2012). Report on the UN Decade of Education for Sustainable Development, Paris: UNESCO. Accessed 8 March 2022.
<https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>.
- United Nations. (2015). Transforming our world: the 2030 Agenda for sustainable development: A/RES/71/1.<https://undocs.org/A/RES/71/1>
- United Nations. (1987). Our common future – Brundtland report, Oxford University press.
- University of Pretoria (2022). UP launches national network to support UN Sustainable Development Goals, 10 March:
www.up.ac.za/www.eua.ed/downloads/publications/universities-and-sustainable-development-towards-the-global-goals.pdf

www.cput.ac.za
www.cut.ac.za
www.ru.ac.za
www.uct.ac.za
www.uj.ac.za
www.wits.ac.za

STRATEGIES TO SUPPORT ECONOMICS TEACHERS WITH NO SPECIALIZATION IN THE SUBJECT, SOUTH AFRICAN CONTEXT

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Abstract

This study sought to investigate the strategies to support Economics teachers with no specialization in the subject. Learners' poor academic performance in Economics is attributed to the teaching of the subject by teachers who have not specialized in this subject. The study is grounded in Pedagogical Content Knowledge Theory. The study adopted a qualitative research approach, using face-to-face semi-structured interviews and document reviews to collect the required data. Purposive sampling was used to select four educators who teach Economics without specialization as participants, one School Management Team (SMT) member, one principal (P1), and one subject advisor (SA). It revealed that principals provide support to ensure that these teachers received all the resources they required to facilitate teaching and learning, the subject advisor developed additional support material for teachers, and the Department of Education provided laptops with loaded data on a monthly basis and recommended that teachers teaching subjects without specialization should be reassigned to teach subjects of their specialization, and/or the teachers should enroll in a study course(s) specially designed for them to capacitate themselves. This study, hoped that the objective be achieved to an approved level of satisfaction, the findings and recommendations are that teachers teaching a subject without specialization need to plan and have plenty of time to capacitate themselves; HODs, principals, and the Subject advisors should always avail themselves to teachers in need of support at all times; there should be frequent professional development workshops conducted; the DoE must collaborate with institutions of higher learning to create study courses and programs specially designed for teachers with no specialization; teachers teaching Economics without specialization in the subject need to be reallocated with their respective subjects of specialization.

Key words: Economics, subject specialisation, support, Professional development; teachers

Background of the study

Globally, many teachers are faced with the challenge of teaching subjects without specialized training in those subjects. There abound several evidence in this regard from countries such as Australia (Du Plessis, 2015); Denmark (Rasmussen, 2016); Malaysia (Salleh & Darmawan, 2013); Malta (Mizzi, 2013); Nepal (Khadka, 2016); and Nigeria (Ojo & Nkoyane, 2016) among others where this is a common practice. As a result, teachers face a number of challenges in their delivery of content and instruction in these subjects. Consequently, they need a lot of support in order to be efficient in the delivery of their

instruction. Therefore, this study sought to investigate the strategies needed to support Economics teachers with no specialization in the subject.

Needs for support were explored in relation to lesson preparation, confidence in offering lessons, understanding of the jargon, optimal utilization of available resources, low level of effectiveness as well as efficiency in teaching the subjects as challenges related to this phenomenon. The objective of this study was to come up with strategies that can be used to support teachers teaching Economics without specialization in the subject. In achieving this objective, the study was guided by the following research question: How can teachers teaching Economics without specialization in the subject be supported? The researchers attempted to answer the research question with the hope of ultimately coming up with efficacious support that can be used to help these teachers and improve the research problem of poor academic performance of learners as stated by (Idika, Onuoha, Nji, and Eze, 2018).

Theoretical Framework

This study is underpinned by Pedagogical Content Knowledge (PCK) proposed by Shulman (1986). This is about teachers' Content Knowledge (CK), Pedagogical Knowledge (PK), and Pedagogical Content Knowledge (PCK). CK represents teachers' deep understanding of the subject matter taught (Kultsum, 2017), PK refers to the specialized knowledge of teachers for creating effective teaching and learning environments for all learners, and PCK is the knowledge needed to make the subject matter accessible to learners. The researchers used this theory because it was espoused by Fernandez (2014) to be a fruitful model for the investigation aimed to document knowledge that makes one a good teacher. Therefore, this theory assisted the researchers in devising ways to support these teachers improve their pedagogical content knowledge of the subject through professional development and enrollment in institutions of higher learning.

Literature Review

Community of Practice in Teacher Support

Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly (Wenger-Trayner & Wenger-Trayner, 2015). Teachers within the scope of this study constitute a community of practice. They can discuss the challenges they face in teaching Economics and come up with strategies to support one another. Among other things, in helping one another, these teachers can request the necessary information for their challenges, seek help from experienced peers, discuss developments that could assist in their problems, and possibly develop confidence. The teachers under study can also discuss problematic topics, assist one another in setting Curriculum Assessment Policy Statement (CAPS) aligned assessments, and form extra classes. Within these communities, Idika et al. (2018) add, the teachers can also create standards that are of sufficiently high quality and specificity and ensure that stakeholders in Economics Education are thoroughly involved in the process of uplifting these standards. By sharing their concerns and challenges, they may get the required support which may help them realise other effective teaching and learning resources rather than solely depending on textbooks and ready-made materials. They may also be able to bring their challenges to the attention of the Department of Education (DoE)

as a collective to be assigned to teach the subjects they are specialists in, and qualifying Economics teachers brought in to teach Economics.

Continued Professional Development

As recommended by Adu et al. (2014), Economics teachers in secondary schools should attend Continued Professional Development (CPD) courses regularly because this will help them to update their programme knowledge. The researchers support the view and add that the CPD course may also put these teachers in a position to gain more information on new teaching methods and increase their knowledge of Economics in handling challenging topics. Adu et al (2014) further recommend that these teachers should periodically be given opportunities to update their knowledge through in-service training and retraining courses to increase their knowledge base in their subject area. This would strengthen the teachers' use of technological resources as modern methods of teaching and learning.

Professional development includes seminars and workshops facilitated by only experts in content areas of the subject and methodology. Ojo and Nkoyane (2016) add that these courses should emphasize giving teachers a sense of familiarity with Economic ways of thinking and reasoning, rather than only particular Economic theories or approaches. Therefore, this support to teachers is key because Economics workshops, according to Nkanzela (2015), lead to a significant increase in learner performance.

Reassignment of Teachers to their Specialization Subjects

It is recommended by Khadka (2016) that the employment of Economics teachers should be strictly based on merit. This means that Economics teachers without specialization need to be reassigned to their respective subject specializations. This can ensure that those teachers who studied/specialized in Economics exclusively teach Economics. This reassignment of the subject to teachers according to their specialization would also make teaching effective (Idoko & Emmanuel, 2015). They add that employment of Economics teachers should be based on assessment through written tests and trial teaching to guard against the occurrence of this phenomenon. The researchers support trial teaching before a teacher is appointed so that a teacher can showcase Economics knowledge and relevant teaching strategies he/she can use to effectively teach the subject. The written tests and trial teaching can help in making sure that teachers appointed to teach Economics have at least studied the subject until the third-year level at a tertiary institution. These can also ascertain the viability of the teacher to transmit their Economics knowledge to learners through appropriate methods in order to improve poor academic performance in the subject. However, written tests are not necessary as the university academic transcript of the teacher can be used more efficiently to check the grades of this teacher in Economics. Additionally, the government should monitor schools through frequent observations to check whether they are not employing teachers outside their areas of specialization. Idika et al. (2018) argue that this will ensure only teachers with certification in Economics should teach the subject.

Methodology

The study is underpinned by an interpretivism research paradigm to interpret the participants' experiences about the phenomenon under study. The research approach

employed in the study was a qualitative approach to collect and analyze data to answer the research questions. Qualitative research attempts to study the experiences of participants in their natural settings (Haradhan, 2018). A multiple case study design was used to gain a sharpened understanding of the phenomenon. It seeks answers to the research questions in three schools with low academic results in the Education District, and in establishing future research areas (Hancock, Algozzine & Lim, 2021). The research sample was taken from Amathole West Education District as the lowest performing district in Economics in Eastern Cape in the 2017 and 2018 matric results, and among the lowest performing in 2019. The sample consisted of 4 teachers teaching Economics in the Amathole West Education District without specialization in the subject, 1 principal and 1 School Management Team member (SMT) from the lowest-performing schools, and an Economics and Business Studies subject advisor. The main data collection technique used in this research study was the interview; it was supported with documents that were reviewed, such as analysis of results in the subject, teachers' subject files, minutes and agendas of subject committee meetings, Economics policy document, and learners' notebooks and files. The researchers adhered to Creswell's (2013) ethical considerations as permission to conduct the study was granted; informed consent from the participants was granted; participation was voluntary; no harm and risk were encountered; the identity of participants remained anonymous; honesty and trust were adhered to; credibility and trustworthiness were adhered to.

Data analysis

The thematic data analysis technique used in this research study revealed the following themes:

Support from the School, Principal and Department

The challenges that arise from the workplace requires support as the relevant strategy to help teachers deal with their challenges in a subject matter when teaching outside the area of specialization (Mizzi, 2013). In supporting these teachers, schools need to appoint tutor and/or mentors to further explain concepts taught in class using different methods of teaching with the hope of ultimately closing the content gap among learners. The tutors were teachers from other schools and sometimes unemployed graduates who have majored in Economics, and their additional work may help improve the poor academic results (Idika, et al., 2018). However, this arrangement could have compromised these tutors' work in their respective schools where they are permanently employed, as they might have ended up stealing some time from their respective schools to help teachers and make extra cash. In doing so, they increase their workload as they find themselves working for two schools, and the pressure of producing good results continues to grow.

School principal (P1) in the study reported that they made sure that teachers without specialization in Economics were given all the resources they required to facilitate teaching and learning. These are his words: *"I organize all the necessary resources so that they be well equipped when they get into class."*

Subject Advisor (SA) developed additional support material like printed notes from various sources, and previous question papers so they did not struggle to develop their assessments

and prepared daily lesson plans. The Department of Education gave teachers laptops and trained them to use these devices.

Teacher 1 (T1) suggested:

“Principals go an extra mile and try to get specific mentors for the school. ...there are sometimes lecturers from University that sometimes come and help.” These efforts reduced their workload and helped to increase their confidence. Nonetheless, the researchers question the remarks made by the principal as teacher 3 (T3) reported that they did not get any support from principals with regard to teaching the subject without specialisation. The following are T3’s words: *“There is no support from my school, no support that I get from the principal”*

Personal Initiatives by Teachers

Teachers under study developed personal initiatives. P1 reported that teachers capacitated themselves by studying and researching the subject thoroughly way before they went to class and made the necessary research on topics and content that they had difficulties in understanding.

These are verbatim words from P1: *“They sit down and study the subject as they don’t have that much background in it”*. Ball and McDiarmid (2013) believe that teachers who lack adequate subject matter content and understanding may develop deeper knowledge by studying the subject through the textbook and explaining it to learners. The British Educational Research Association (2014) encourages teachers to research the subject to keep up-to-date with the latest developments in the subject and effective instructional techniques to inform their pedagogical content knowledge. Studying and researching the subject you teach is a great initiative by teachers under study as this may improve the quality of teaching. However, this may lead to misconceptions about the information acquired without the supervision of an expert. The misconceived information may be passed on to learners and affect academic performance negatively.

T1 added that in the process of studying and researching the subject, he used to *“watch a lot of news to get a deeper insight into the subject, ask people who have well-versed knowledge”* to explain and clarify certain content for them. When researching or studying the subject on particular topics and content, an SMT member said she used to *“search for information using Google and use a dictionary for clarification of certain terms”*. Nonetheless, the researcher believes studying and researching the subject on your own needs someone with a very deep background in the subject, as subjects like Economics have abstract topics which are not easy to understand, even for teachers who are full specialists. Therefore, it may also take too much time for these teachers to grasp the essence of the subject.

Additionally, T1 contended that *“teachers sometimes used to download videos of other teachers and let learners watch as a lesson, and university lecturers come to teach certain topics in the subject”*. Teachers should elaborate and clarify complex issues as the video unfold, taking into cognisance the fact that they are English second language speakers. The researcher is concerned about the effectiveness of the videos learners watch since the language of instruction is English, and the teachers complained about English being a

barrier to learning Economics for some learners. The researchers believe that the development of an Economics dictionary will be very helpful to the teachers under study.

The researchers are of the opinion that teachers should reflect on their teaching methods and try to come up with methods and strategies that will stimulate learners' interests and use reinforcements to encourage learner participation in class. Pedagogical Content Knowledge used in this study also states that when teachers have a deeper understanding of the subject they teach, they can ease learning for learners by presenting it in interesting, motivating, and even entertaining ways. The researchers applaud the effort of teachers teaching Economics without specialization in the subject to improve their subject knowledge and pedagogy of the subject.

Attend Professional Development Workshops

Boudersa (2016) argues that teacher training and professional development are central mechanisms for the improvement of teachers' content knowledge and their teaching skills in order to meet high educational standards. Srinivasacharlu (2019) adds that it is the requirement for all teachers to continually update and equip themselves with ever-increasing skills and competencies to always remain abreast in their profession and do justice to society. Teachers in this study have attended professional development workshops to cope with the challenges they face in teaching the subject without specialisation. Teachers attended different workshops based on specific needs specific teachers to equip them with the necessary skills, pedagogy and content knowledge in the subject. After attending workshops, SA claimed that they visit schools to check the implementations of strategies, skills acquired, and improvements from the challenges, and monitor the progress of these teachers. However, the teachers complained that there were few workshops organised for them to be adequately equipped with the necessary knowledge and skills. T1 commented: "... *we are capacitated by attending those workshops, but there is only one workshop to be attended in a term*". For someone who is challenged with the content of the subject, one professional development workshop a term is not enough. At least two would be relatively sufficient, one in the beginning and the other at the end of the term, followed by frequent visits to monitor the progress as teacher T3 said there is no monitoring that is done.

Improve Teachers' Confidence in the Subject through Collaboration

The teachers in the study, at times, rely largely on working with colleagues in and outside their schools to seek any relevant assistance in the form of cooperation to accomplish a common goal as a way of trying to cope with the challenges they face. Teamwork has proven to be effective, if members understand the team's purpose, work toward that purpose, and are all independent of and dependent on other members to accomplish the task (Polega, Neto, Brilowski, & Baker, 2019). Teamwork is aligned with the Systems Theory adopted in this study as it argues that elements of the system are depending on each other for the achievement of the system's objectives (Lai & Lin, 2017). Teachers in the study cited that they worked together in teams to improve their pedagogical practices, advance learners' insight, and achievement in the subject, and deal with challenges they face generally in the subject. Teacher 1 is cited commenting about teachers working in a team:

“We work in a team in our district, we try to understand each other by trying to create relations so that we can be able to help each other. Others try to team up with the neighbouring schools on certain moments and send their learners to that school and be there when the teacher is presenting.” SA adds that “teachers plan the lessons with other teachers in neighbouring schools. At times they can plan and organise team teaching by combining with those that are having specialization in the subject, can also ask other teachers to come and assist in teaching the content that is difficult for them.”

The researcher believes these teachers may still be challenged with implementing best practices they received from working in a team and may still be challenged greatly when faced with gifted learners who do not just take from the teacher but also ask more clarifying questions.

Enrolling with Institutions of Higher Learning

Economics teachers without specialisation should periodically be given opportunities to update their knowledge through retraining courses to increase their knowledge base in their subject area (Srinivasacharlu, 2019). Ojo and Nkoyane (2016) added that these retraining courses will stimulate and motivate these teachers to perform better. T1 and T4 further added that Institutions of Higher Learning should work together with the DoE to create these retraining courses that will accommodate and give teachers under study opportunities to develop themselves. These courses should be similar to what was done when teachers were enrolling for the Advanced Certificate in Education (ACE) to update their qualifications. Teachers who were participants in the study expressed that they had the desire to enroll in institutions of Higher Learning to upgrade themselves and gain new content knowledge about the subject, but they could not afford to fund their studies. Therefore, teachers suggested that DoE must create funds to support them as funds may be a stumbling block. Below is the comment of teacher 4 with regard to enrolling with institutions of higher learning:

“I would love to go back to school but I cannot afford to, so the department needs to open up such opportunities for teachers to go back to school even if it’s on a part-time basis, more especially where they are found having to teach the subject they are not specialists in.”

Moreover, DoE should make sure that no new teacher is appointed to teach outside his/her area of specialisation. The researcher believes that if these teachers are enrolled in such courses, they can develop their knowledge of the main topics, concepts, and areas of the subject matter; may improve the quality of teaching and learning; and help learners achieve better academic results in Economics.

Discussion of Findings

In supporting these teachers, schools appointed tutors and/or mentors to further explain concepts using different methods of teaching with the hope of ultimately closing the content gap among learners. These tutors were specialist teachers appointed by the

Department of Education in other schools and sometimes unemployed graduates who have majored in Economics at university. Principals ensured that these teachers received all the resources they required to facilitate teaching and learning, the subject advisor developed additional support material for teachers, and the Department of Education gave them laptops with loaded data on a monthly basis for academic purposes. However, these teachers complained that they did not always get the support they required.

Consequently, to support these teachers, the Department of Education must collaborate with Institutions of Higher Learning to create study courses and programs specially designed for teachers without specialisation in the subjects they teach, and those challenged by the content they teach. These programs and courses should aim at equipping teachers with content and pedagogical knowledge and teaching skills in the subjects they teach. This might assist in closing the content gap between both teachers and learners. These study courses should be made compulsory for every teacher teaching outside his/her area of specialisation to enroll in to end the phenomenon under study, and funds should be provided by the department to support those who cannot afford to fund their studies. When learners are taught by teachers who are well-versed in the content they teach and how to teach it, those learners may achieve good academic results and end the current problem of poor results in Economics.

The study revealed that teachers who teach Economics without specialising in the subject should, if possible, need to be reallocated to teach their respective subjects of specialisations to make sure that no teacher teaches without specialisation in that subject. Doing so can ensure that teachers who studied, majored, and specialised in Economics are the ones who teach Economics. The Department of Education should control and monitor the process to make sure that no teacher is teaching without specialisation and change the process of hiring teachers.

This study found that teachers attended professional development workshops to cope with the challenges they faced in teaching the subject. They attended assessment and content gap workshops organised by the district, with the aim of getting adequate assistance. Nonetheless, there were very few workshops organised for them, which were not enough to equip them with the necessary knowledge and skills. Therefore, the study recommends that these Economics teachers attend professional development workshops on a regular basis to update their content knowledge base to gain more information on new teaching methods. These workshops could be organised by the subject cluster groups and the district.

Most often than not, these teachers relied largely on working with colleagues in and outside their schools to seek relevant assistance in the form of collaboration and communities of practice to cope with the challenges they face. Collaborating with other teachers, especially specialists and experienced teachers who are departmental heads and senior teachers is pivotal in restoring confidence and boosting the knowledge capacity of a teacher. When they team up with other teachers, they explain and clarify economic issues, plan their lessons together, discuss challenges they face in teaching Economics, share strategies they use in dealing with similar challenges, help each other with the best methodologies of

teaching certain content, and help teach a certain topic of difficulty in someone else's school.

Among other things, teachers under study equipped themselves by studying and researching the subject from textbooks and the internet to develop deep content knowledge of the subject. This should be viewed as a great initiative for any teacher because, after all, teaching and learning of the subject depends mostly on the teacher. The teacher is the one to account for teaching and learning of that subject. These teachers also used to download videos of other teachers and lecturers teaching a certain topic in the subject and allowed learners watch that as a lesson.

Conclusions

The objective of this study was to come up with strategies that can be used to support teachers teaching Economics without specialization in the subject. Among others, the study found the strategies that can be used to support the teachers under study as: form communities of practice, collaboration to boost their confidence, enroll teachers who teach without specialization to a study course to update their knowledge and pedagogies of teaching the subject, and reassign teachers to their subjects of specialization. Therefore, we as researchers of this study, hope that the objective of this study has been achieved to an approved level of satisfaction. The researchers also hope that the findings of the research study and recommendations suggested would be found valuable by the readers, curriculum planners, managers in the provincial and national DoE, and teachers teaching Economics and other subjects without specialization in the subjects globally.

Recommendations

Based on the literature reviewed and data collected in the study, the following recommendations are made:

- Teachers teaching a subject without specialization need to plan and have plenty of time to capacitate themselves by studying the subject, conducting the necessary research, consulting, and asking for help where they encounter challenges.
- HODs, principals, and Subject advisors should always avail themselves to teachers in need of support.
- There should be frequent professional development workshops conducted by proficient people with adequate content knowledge, skills, and experience in the subject for teachers, especially those who teach Economics without specialization, those who teach the subject for the first time, and those who are newly appointed directly from the university.
- The DoE must collaborate with institutions of higher learning to create study courses and programs specially designed for teachers with no specialization in the subjects they teach, and those challenged by the content they teach to equip teachers with content and pedagogical knowledge and skills in the subjects they teach
- All teachers who teach Economics without specialization in the subject need to be reallocated with their respective subjects of specialization and include all teachers with specialization in Economics but are teaching other subjects to teach Economics.

References

- Adu, E. O., Galloway, G., & Olaoye, O. (2014). Teachers' characteristics and students' attitude towards economics in secondary schools: Students' perspectives. *Mediterranean Journal of Social Sciences*, 5(16), 455 – 455.
- Ball, D. L., & McDiarmid, G. W. (2013). The subject matter preparation of teachers. Washington DC: *Educational Research and Improvement (ED)*.
- Boudersa, N. (2016). The importance of teachers' training programs and professional development in the Algerian educational context: Toward informed and effective teaching practices. *Expériences Pédagogiques*, 1(1), 1-14.
- British Educational Research Association. (2014). *The role of research in teacher education: Reviewing the evidence: Interim report of the BERA-RSA Inquiry*. London, England: British Educational Research.
- Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches. 4th Edition. USA: SAGE publication.*
- Du Plessis, A. E. (2015). Effective education: Conceptualising the meaning of out-of-field teaching practices for teachers, teacher quality and school leaders. *International Journal of Educational Research*. 72, 89–102.
- Fernandez, C. (2014). Knowledge base for teaching and pedagogical content knowledge (PCK): Some useful models and implications for teachers' training. *Problems of Education in the 21st Century*, 60(1), 79-100.
- Hancock, D. R., Algozzine, B. & Lim, J. H. (2021). *Doing Case Study Research: A practical guide for beginning researchers 4th Edition. Teachers College Press, New York.*
- Haradhan, M. (2018). Qualitative Research Methodology in Social Sciences and Related Subjects. *Journal of Economic Development, Environment and People*, 7 (1), 23-48.
- Idika, E. O., Onuoha, J. C., Nji, I. A., & Eze, E. (2018). Determinants of Academic Achievement in Economics in Public Secondary Schools in Nsukka Local Government Area Enugu State, Nigeria. *International Journal of Economics Education Research*. 1 (1).
- Idoko, C. U., & Emmanuel, A. (2015). Teachers' effectiveness in teaching economics: Implication for secondary education. *International Journal of Innovative Research & Development*, 4(2), 69-72.
- Khadka, C. B. (2016). Effectiveness of teaching Economics in higher secondary school level, Nepal. *Economic Journal of Development Issues*, 99-126.

- Kultsum, U. (2017). The Concept of Pedagogical Content Knowledge (PCK): Recognizing the English Teachers' Competences in Indonesia. *Advances in Social Science, Education and Humanities Research*, 134, 55-59.
- Lai, C. H., & Huili Lin, S. (2017). Systems theory. *The international encyclopedia of organizational communication*, 1-18.
- Mizzi, D. (2013). The challenges faced by science teachers when teaching outside their specific science specialism. *Acta Didactica Napocensia*, 6 (4), 1-6.
- Nkanzela, D. N. (2015). *Factors contributing to low academic performance of grade twelve learners in Mbizana district*. (Doctoral dissertation, University of Zululand).
- Ojo, G. M., & Nkoyane, V. (2016). Factors affecting effective teaching and learning of Economics in some Ogbomosho high schools, Oyo state, Nigeria. *Journal of Education and Practice*, 7 (28), 115-124.
- Polega, M., Neto, R. D. C. A., Brilowski, R. & Baker, K. (2019). Principals and teamwork among teachers: an exploratory study. *Revista@ mbienteeducação*, 12(2), 12-32.
- Rasmussen, L. V. (2016). Teaching outside the comfort zone: An overstated problem? *Dansk Universitetspædagogisk Tidsskrift*, 11(21), 198-205.
- Salleh, U. K. M., & Darmawan, I. G. N. (2013). Differences between in-field and out-of-field History teachers' influence on students learning experience in Malaysian secondary schools. *Creative Education*, 4 (9), 5-9.
- Shulman, L. S. (1986). Those who understand: knowledge growth in teaching. *Educational Researcher*, 15 (4), 4-14.
- Srinivasacharlu, A. (2019). Continuing Professional Development (CPD) of Teacher Educators in 21st Century. *International Journal of Education*, 7 (4), 29–33.
- Wenger-Trayner, E., & Wenger-Trayner, B. (2015). *Communities of practice: A brief introduction*. Retrieved from: <https://wenger-trayner.com/wp-content/uploads/2015/04/07-Brief-introduction-to-communities-of-practice.pdf> on 11 August 2022.

NUMERACY CORNERS AND LOWER BASIC PUBLIC PRIMARY SCHOOL PUPILS' TWENTY-FIRST CENTURY SKILLS ACQUISITION: IMPLICATIONS FOR ACHIEVING SUSTAINABLE DEVELOPMENT GOALS IN LAGOS STATE, NIGERIA

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Abstract

This study examined numeracy corners and lower basic public primary school pupils' twenty-first century skills acquisition with their implications for achieving Sustainable Development Goals in Lagos State, Nigeria. A descriptive survey research design was used for the study. Simple random sampling technique was used to select 20 lower basic public primary schools and 60 teachers. Two research instruments, titled "Observation Schedule for Availability of Numeracy Corners and Materials" and "Questionnaire on Teachers' Perception of Numeracy Corners and Acquisition of 21st Century Skills", designed by the researchers and validated by research experts were used to collect data for the study. The instruments yielded reliability coefficients of 0.91 and 0.85, respectively. The data was collected by the researchers and some trained research assistants. The data was analysed using descriptive statistics of frequency counts, percentages, mean, and standard deviation. Findings revealed that numeracy corners and materials were not adequately available in the lower basic public primary schools covered. Teachers had positive perceptions on the extent to which numeracy corners promote the acquisition of twenty-first century skills. It is recommended that the federal government of Nigeria, through the Lagos State commissioner for education, should adopt a proactive approach to ensuring that provision is made for numeracy corners at each lower basic public primary school. The corners should be well equipped with learning facilities that would enhance the acquisition of twenty-first century skills.

Keywords: Numeracy corners; lower basic public primary school pupils; twenty-first century skills; Sustainable Development Goals.

Introduction

The first eight years of a child's life are pivotal for all aspects of learning, growth and development. This premise is the reason the early childhood period needs much to be desired. This is because early childhood education builds the foundation for a successful and promising future for children. Also, early life experiences have a significant impact on how successful children become later in life. Hence, promoting positive experiences for young children early in life is highly imperative. The above point to the fact that early years' activities and experiences serve as bases for the formation of a secure emotional

bond, social transformational skills, computational skills, functional skills, and other significant life skills that would help children become successful in their endeavours (Ahmad, 2022). It is pertinent to establish that achieving the 2030 Sustainable Development Goals in any nation depends hugely on the quality of its education. This is due to the fact that without education, there can be no significant national growth. This is why it is critical that children are allowed to participate in all of their milestone activities in order not to miss out on critical skills in their lives (David et al., 2014). Aside from social and emotional skills, there are other skills children are expected to acquire in their early years, such as, cognitive skills, moral skills, physical skills, twenty-first century skills, among others.

It is critical to emphasise at this point that the fundamental skills that young children are expected to acquire during their early years are twenty-first century skills. The term 'twenty-first century skills' is an overarching concept for the knowledge, skills and dispositions that citizens need to be able to contribute to the knowledge society. Hwang (2020) defines twenty-first century skills as the knowledge, skills, and attitudes necessary to be competitive in the twenty-first century workforce, participate appropriately in an increasingly diverse society, use new technologies, and cope with rapidly changing workplaces. These skills are knowledge and expertise that are significant in daily and professional life. They include critical thinking, communication skills, creativity, problem solving, perseverance, collaboration, information literacy, technology skills, digital literacy, media literacy, global awareness, self-direction, social skills, literacy skills, civic literacy, social responsibility, innovation skills, and thinking skills (Aunio et al., 2015). Twenty-first century skills are very important skills to be acquired through children's interaction with materials, particularly numeracy materials.

Acquisition of numeracy skills is highly imperative in the twenty-first century. Numeracy is very pivotal, and it is important to assist young children in developing their mathematical thinking early enough. Numeracy, which can be interchangeably referred to as early year's mathematics, is a foundation-building subject that allows children to invent new ideas and see life from a different perspective. In addition, the numeracy skills of children are highly significant in the expression of mental skills that are necessary for future success. A child's mathematics knowledge at the beginning of kindergarten predicts later academic achievement as well as early reading and attention skills. The importance of numeracy in early childhood can be assessed by the fact that kids who develop a good understanding of math are often confident when it comes to decision-making and environment assimilation (Ahmad, 2022). Numeracy is a skill that involves confidence and the ability to deal with numbers and measurements. Numeracy is the capacity, confidence, and disposition to use mathematics in our daily lives. Children gain new mathematical understandings through engaging in problem-solving. The mathematical ideas with which young children interact must be relevant and meaningful in the context of their current lives. Spatial sense, structure and pattern, number, measurement, data argumentation, connections, and exploring the world mathematically are the powerful mathematical ideas children need to become numerate (Aubrey & Godfrey, 2003).

To Ahmad (2022), numeracy is measuring, sorting, building, noticing patterns, making comparisons, describing the environment, counting and knowing the names of shapes. Mei-Shiu (2018) adds that early numeracy activities are more than simply serious mathematics games. In fact, it is pertinent to establish that numeracy performs an increasingly important role in enabling and sustaining cultural, social, economic, and technological advancement. Numeracy skills enable logical reasoning, which leads to better comprehension of the world around us. The assertions reveal that education provides individuals with sufficient reasons to choose which learning themes will be preserved and maintained throughout their lives.

Further, numeracy skills provide the basis for a working knowledge of the number system, a set of computational skills, and the desire and capacity to solve number issues in various situations. It is important to emphasise that due to the significance of numeracy skills in children's futures, the availability of numeracy materials in schools is highly imperative. When numeracy materials are available, the children will be able to interact with the materials and acquire significant skills. This is why it is important that provisions are made for numeracy corners in early childhood education learning centres. Learning corners are referred to as designated areas within the lower basic classrooms where specific activities are arranged for the children to explore (Nakpodia, 2011). Aside from the provision of numeracy corners in schools, it is pertinent that the corners are adequately equipped with relevant and age appropriate numeracy materials. The reason for this position is not far-fetched; as the non-availability and inadequacy of the materials would render the corners insignificant. It is in light of the above submission that most researchers' interest was piqued to conduct studies on the issue of numeracy corners and materials to promote the holistic development of children in several ways.

From an empirical point of view, the current researchers painstakingly observed in the literature that there is a dearth of studies on the issue of the availability of numeracy corners and the adequacy of numeracy materials. However, studies have been conducted on numeracy corners generally. Specifically, Okongo et al. (2015) carried out a study in Kenya, which revealed that there were inadequate teaching and learning resources at pre-school centres in the Nyamira North sub-county. This simply implies that the level of availability of learning resources generally is low. Guhl (2019) conducted a study in which it was revealed that early math and numeracy skills significantly impacted the academic achievement of the pupils covered in the study. A study by Mei-Shiu (2018) revealed that early numeracy activities have a significant effect on the mathematics achievement of the respondents covered in the study. Hwang (2020) showed that students who engage in more early numeracy activities at home are more likely to have high mathematics achievement in the fourth grade. Early numeracy competencies and self-efficacy beliefs positively mediate this relationship. Similarly, the study by Philip and Emah (2022) revealed that pupils taught using differentiated instruction performed significantly better than those taught using conventional teaching methods in numeracy. Furthermore, there was a significant difference in the scores of boys and girls taught using differentiated instruction. There is no significant interaction effect of mode of instruction and gender on the mean numeracy achievement of nursery II students. With respect to twenty-first century skill

acquisition, Singh (2021) reported in his study that twenty-first century skills are better promoted through science, technology, engineering, arts, and mathematics education.

Literature search further reveals that there is a huge gap in the literature on the issues relating to numeracy corners and materials. Presently, this position is more evident in Nigeria. This simply implies that more research attention is needed to be directed to the issue of the numeracy skills of children. This notable observation that was conspicuously observed by the researchers and the significance of assisting young children to acquire numeracy skills in the early years piqued the interest of the researcher to quantitatively examine numeracy corners and lower basic public primary school pupils' twenty-first century skills acquisition: implications for achieving Sustainable Development Goals in Lagos State, Nigeria.

Statement of the Problem

Teaching in the twenty-first century demands more creative, innovative and analytic processes in order to adequately prepare lower basic primary school pupils for the future. Thus, deliberate actions must be taken to provide learners with the opportunity to interact with and learn from materials that would prepare them for the twenty-first century. Twenty-first century skills would enable them to become active, creative, committed and proactive in their decision-making. With respect to this study, numeracy skills are substantial, lifelong skills that are highly pivotal in the early years of a child's development. This implies that the learning corners of all early childhood education schools need to be adequately equipped with all relevant numeracy materials that would help children become well equipped with mathematical terminologies. It has been noted that numeracy is measuring, sorting, building, noticing patterns, making comparisons, and describing the environment. However, literature showed that numeracy materials were inadequately available in lower basic primary schools (Okongo et al., 2015; Mei-Shiu, 2018; Guhl, 2019). In spite of the fact that numeracy materials are imperative for developing computational skills and problems solving skills relating to number issues. It further revealed that few studies exist on the issue of numeracy corners and primary school pupils in the twenty-first century. If proactive measures are not advanced to fill the research gaps in the literature left uncovered, there is no doubt that children whose schools are not well equipped with numeracy materials will not be able to learn maximally. It is against this backdrop that the researchers considered it imperative to conduct this study.

Purpose of the Study

The study

- i. examines the extent availability of numeracy corners and materials in lower basic public primary schools in Lagos State; and
- ii. determines the extent to which numeracy corners promote acquisition of twenty-first century skills that pupils need to succeed in the future.

Research Questions

- 1) What is the extent of availability of numeracy corners and materials in lower basic public primary schools in Lagos State?

- 2) To what extent do numeracy corners promote acquisition of twenty-first century skills that pupils need to succeed in the future?

Methodology

A descriptive survey design was used for this study. The researchers used a simple random sampling technique to select twenty public primary schools and their respective teachers. The schools were easily accessible, had qualified and experienced preschool teachers, and had been established for over ten years. Specifically, six lower basic public primary teachers were selected from each of the schools. The teachers had at least an NCE certificate, which qualified them to become preschool teachers, and they had been working in those schools for over five years. Two research instruments that were duly screened and scrutinised by research experts in the Departments of Social Sciences Education, Early Childhood Education Cohort, University of Lagos, Yaba, Akoka, Lagos, were used to collect data for the study. The first was an observation schedule. It was titled "Observation Schedule for Availability of Numeracy Corners and Materials (OSANCM)". The instrument was subjected to a reliability test through an inter-rater scale, and a reliability of 0.89 was obtained. Thereafter, the data were collected. It was specifically used to check the availability of numeracy corners and materials in the schools sampled. It contained twenty numeracy materials. The response type used was "not available and available. The second was a questionnaire that was titled "Questionnaire on Teachers' Perception of Numeracy Corners/materials and Acquisition of 21st Century Skills (QTPNCACS)". The instrument was subjected to a reliability test through Cronbach's alpha technique, and a reliability coefficient of 0.91 was obtained. The instrument had eight items. The response type used was the Likert-Scale type of Strongly Disagree (SD), Disagree (D), Agree (A), and Strongly Agree (SA).

The data was collected by the researchers and four trained research assistants. Prior to the data collection phase, there was a written letter to seek the consent of the school heads and the teachers for approval. Thereafter, the researchers and the trained research assistants used the observation schedule to observe the availability of numeracy corners and materials in the schools for a period of two weeks. Afterward, the researcher and the research assistants administered the questionnaire to the teachers. In total, the data collection phase lasted for a period of six weeks. The data were analysed using descriptive statistics of frequency counts, percentages, mean, and standard deviation to answer the research questions asked.

Results

Answers to the Research Questions

Research Question 1: What is the extent of availability of numeracy corners and materials in lower basic public primary schools in Lagos State?

Table 1

The Extent of Availability of Numeracy Corners and Materials in Lower Basic Public Primary Schools in Lagos State

Numeracy Materials	Not Available		Available	
	Freq.	%	Freq.	%
Counters	6	30.0	14	70.0
Geometry shapes	6	30.0	14	70.0
Place valued blocks	17	85.0	3	15.0
Transparent counting chips	15	75.0	5	25.0
Math playing cards	7	35.0	13	65.0
Measuring spoons/cups	18	90.0	2	10.0
Geo-boards	6	30.0	14	70.0
Pattern blocks	13	65.0	7	35.0
Ice cube trays	19	95.0	1	5.0
Triangle flashcards	16	80.0	4	20.0
6-sided coloured dice	19	95.0	1	5.0
Building blocks of different pattern	7	35.0	13	65.0
Number hunt chart	4	20.0	16	80.0
Number books	14	70.0	6	30.0
Number towers	15	75.0	5	25.0
Rainbow rice number formation	17	85.0	3	15.0
2D shapes	17	85.0	3	15.0
Cubes of different shapes	15	75.0	5	25.0
Number charts	1	5.0	19	95.0
Charts showing mathematical operations	2	10.0	18	90.0

Note on Decision: *The decision is based on the level of availability of the materials in the schools covered. Specifically, the percentages of the unavailable materials are more than the available materials. Hence, it is said that the extent of availability of numeracy corners and materials in lower basic public primary schools in Lagos State is low.*

Table 1 shows the extent of availability of numeracy corners and materials in lower basic public primary schools in Lagos State. The table shows that the following numeracy materials are **available**: counters (70%), geometry shapes (70%), math playing cards (65%), geo-boards (70%), building blocks of different pattern (65%), number hunt chart (80%), number charts (95%) and charts showing mathematical operations (90%). However, the table reveals further that the following numeracy materials are **not available**: place valued blocks (85%), transparent counting chips (75%), measuring spoons/cups (90%), pattern blocks (65%), Ice cube trays (95%), number books (70%), number towers (75%), rainbow rice number formation (85%), 2D shapes (85%), and cubes of different shapes (75%). Based on the result from this table, it can be inferred that the extent of availability of numeracy corners and materials in lower basic public primary schools in Lagos State is low. This is because larger percentage of the materials were not available.

Research Question 2: To what extent do numeracy materials promote the acquisition of twenty-first century skills that pupils need to succeed in the future?

Table 2

Extent to which Numeracy Material Promote the Acquisition of Twenty-first Century Skills that Pupils need to Succeed in the Future

Items	SD	D	A	SA	Mean (\bar{x})	Std. D
Numeracy skills are very pivotal to the acquisition of twenty-first century skills.	4 (6.7)	16 (26.7)	31 (51.7)	9 (15.0)	2.75	.80
Acquisition of the twenty-first century skills is fast tracked when children are acquainted with relevant numeracy skills	2 (3.3)	12 (20.0)	17 (28.3)	29 (48.3)	3.22	.89
It is a general believe that numeracy skills are the main requirements for the development of twenty-first century skills.	6 (10.0)	8 (13.3)	11 (18.3)	35 (58.3)	3.25	1.0
Without numeracy skills, acquisition of twenty-first century skills would obviously be difficult.	0 (0.0)	22 (36.7)	22 (36.7)	16 (26.7)	2.90	.80
Numeracy skills are the necessary skills for the acquisition of twenty-first century skills.	4 (6.7)	10 (16.7)	39 (65.0)	7 (11.7)	2.82	.73
Young children’s critical thinking, communication, creativity, problem solving are all better developed and promoted when children are exposed to numeracy corners to interact with the learning materials.	0 (0.0)	23 (38.3)	28 (46.7)	9 (15.0)	2.77	.70
Numeracy materials like 6-sided coloured dice and geometric board are very good to enhance creativity and critical thinking skills of children which are core skills of the twenty-first century skills.	2 (3.3)	15 (25.0)	31 (51.7)	12 (20.0)	2.88	.76
Demonstration of computational skill is an evidence of twenty-first learning which is best promoted by mathematical operational charts	1 (1.7)	13 (21.7)	26 (43.3)	20 (33.3)	3.08	.79
Weighted average					2.96	

N=60

Key: **1** = Strongly Disagree, **2** = Disagree, **3** = Agree, **4** = Strongly Agree

Decision Value: *Low Extent* = 0.00-2.44, *High Extent* = 2.45-4.00

Note on Decision Value: Mean values of all the items in the table were added and divided by the number of items in the table. This gave the weighted average value of which 4.00 is the maximum value that can be obtained. The value of the weighted average that is between 0.00 and 2.44 was taken to stand for **Low Extent** while the one between 2.45 and 4.00 was taken to stand for **High Extent**.

Table 2 shows the extent to which numeracy materials promote the acquisition of twenty-first century skills that pupils need to succeed in the future. The table shows that the respondents agreed as follows: numeracy skills are very pivotal to the acquisition of twenty-first century skills ($\bar{x} = 2.75$), acquisition of the twenty-first century skills is fast tracked when children are acquainted with relevant numeracy skills ($\bar{x} = 3.22$), it is a

general believe that numeracy skills are the main requirements for the development of twenty-first century skills ($\bar{x} = 3.25$), without numeracy skills, acquisition of twenty-first century skills would obviously be difficult ($\bar{x} = 2.90$), numeracy skills are the necessary skills for the acquisition of twenty-first century skills ($\bar{x} = 2.82$), young children's critical thinking, communication, creativity, problem solving are all better developed and promoted when children are exposed to numeracy corners to interact with the learning materials ($\bar{x} = 2.77$), numeracy materials like 6-sided coloured dice and geometric board are very good to enhance creativity and critical thinking skills of children which are core skills of the twenty-first century skills ($\bar{x} = 2.88$) and demonstration of computational skill is an evidence of twenty-first learning which is best promoted by mathematical operational charts ($\bar{x} = 3.08$). Meanwhile, based on the value of the weighted average (2.96 out of 4.00 maximum value that can be obtained), which falls within the decision value for high extent, it can be inferred that the extent to which numeracy materials promote the acquisition of twenty-first century skills that pupils need to succeed in the future is high.

Discussion

The first finding reveals that the extent of the availability of numeracy corners and materials in lower basic public primary schools in Lagos State is low. The reason responsible for this finding could be that the schools' heads are not convincingly aware of the tremendous impact of numeracy materials on the acquisition of twenty-first century skills by lower basic primary school pupils. This result is consistent with the result of a joint study conducted by Okongo et al. (2015), which revealed that there were inadequate teaching and learning resources at pre-school centres in Nyamira North sub-county. It is imperative to note that numeracy materials are not only pivotal to the acquisition of twenty-first century skills by lower basic primary school pupils, but they also enhance pupils' high academic achievement. This lends credence to the findings of Guhl (2019) and Philip and Emah (2022), whose study revealed that early math and numeracy skills significantly impacted the academic achievement of the pupils covered in his study. Similarly, it also agrees with the finding of Mei-Shiu (2018), who reported that early numeracy activities have a significant effect on the mathematics achievement of the respondents covered in the study. All these results advocate the need to actively engage children in numeracy activities. This position is attests to Hwang's (2020) assertion that learners who engage in more early numeracy activities at home are more likely to have high mathematics achievement in the fourth grade. In the same vein, early numeracy competencies and self-efficacy beliefs positively mediate this relationship.

The second finding showed that the extent to which numeracy materials promote the acquisition of twenty-first century skills that pupils need to succeed in the future as perceived by the teacher is high. This result is in consonance with the finding of Singh (2021), who found that twenty-first century skills are better promoted through science, technology, engineering, arts, and mathematics education. This result is also unconnected to the result of Aunio et al. (2015), who reported that critical thinking, creative thinking, problem-solving, collaboration, communication, as well as concepts such as information and communication technologies numeracy, are better acquired through good knowledge of numeracy. Again, the result is in agreement with the assertion of Aubrey and Godfrey (2003) that spatial sense, structure and pattern, number, measurement, data argumentation,

connections, and exploring the world mathematically are the powerful mathematical ideas children need to become numerate.

Conclusion

This study has provided empirical evidence on the fact that numeracy materials are not adequately available in the lower basic public primary schools in Lagos State, despite the fact that good knowledge of numeracy promotes the acquisition of twenty-first century skills that pupils need to succeed in the future. In the light of this fact, it is concluded that the pupils in lower basic public schools would be deprived of the opportunity to acquire twenty-first century skills such as critical thinking, communication, creativity, problem solving, collaboration, technology and digital literacy, self-directed and innovative skills are all core skills of the twenty-first century. Hence, there is an urgent need for proactive steps to ameliorate this issue.

Recommendations

1. The federal government of Nigeria, through the Lagos State minister for education, should adopt a proactive approach to ensuring that provision is made for numeracy corners at each lower basic public primary school. Thereafter, the numeracy corners should be well equipped with learning facilities that are pivotal to the mastering of numeracy, which would fast-track the acquisition of skills for the twenty-first century.
2. Again, the preschool teachers who facilitate learning for young children should endeavour to create feasible times that pupils can visit the numeracy corners to interact with the learning materials in group and learn maximally.

References

- Ahmad, S. (2022). Importance of numeracy in early childhood. Retrieved from <https://www.holidayeducationist.com/importance-of-numeracy-in-early-childhood/>
- Aubrey, C., & Godfrey, R. (2003). The development of children's early numeracy through key stage 1. *British Educational Research Journal*, 29(6), 821-840.
- Aunio, P., Heiskari, P., Van Luit, J., & Vuorio, J. (2015). The development of early numeracy skills in kindergarten in low-, average- and high-performance groups. *Journal of Early Childhood Research*, 13(1), 3-16.
- David, N., De-Jong, M., & Bus, A. (2014). Explaining common variance shared by early numeracy and literacy. *Reading and Writing: An Interdisciplinary Journal*, 27(4), 631-648.
- Guhl, P. (2019). The impact of early math and numeracy skills on academic achievement in elementary School. Northwestern College, Iowa. *Early Math Impact*, 1-35
- Hwang, S. (2020). Examining the effect of students' early numeracy activities at home on later Mathematics Achievement via Early Numeracy Competencies and Self-

Efficacy Beliefs. *International Electronic Journal of Elementary Education*, 13(1), 47-56

- Mei-Shiu, C (2018). Effects of early numeracy activities on Mathematics achievement and affect: Parental value and child gender conditions and socioeconomic status mediation. *EURASIA Journal of Mathematics, Science and Technology Education*, 14(12), 1-16.
- Nakpodia, E. D. (2011). Early childhood education: Its policy formulation and implementation in Nigerian educational system. *African Journal of Political Science and International Relations*, 5(3), 159-163. Retrieved from http://www.academicjournals.org/article/article1381824650_Nakpodia.pdf
- Okongo, R. B., Ngao, G., Naftal, K. R., & Nyongesa, W. J. (2015). Effect of availability of teaching and learning resources on the implementation of inclusive education in preschool centers in Nyamira North Sub-County, Nyamira County, Kenya. *Journal of Education and Practice*, 6(35), 132-141.
- Philip, O. O., & Emah, I. (2022). Differentiated instructions and numeracy skills achievement of nursery II pupils in Uyo Educational Zone, Akwa Ibom State. *Quest journals journal of research in humanities and social science*, 10(2), 37-44.
- Singh, M. (2021). Acquisition of 21st Century Skills through STEAM Education. *Academia Letters*. <https://doi.org/10.20935/AL712>.

ATTAINING SUSTAINABLE DEVELOPMENT THROUGH THE TEACHING OF GEOGRAPHY IN NIGERIAN SCHOOLS

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Abstract

This study reviewed ways in which geographical knowledge through the teaching of senior secondary school Geography can aid the attainment of sustainable development goals for the country. The article made use of secondary data which was sourced from print materials and online publications to evaluate the present SDG period in Nigeria, how far and how well their set target has been met, and ways in which they can be met before the 2030 expiration period. The study reviewed that in the last few decades, there have been countless debates on the role of both natural and man-made variables in creating and perpetuating unequal access to environmental resources and how all these impact the country's sustainable development. The study recommends that the teaching of Geography should begin earlier than in senior secondary school, and should focus more on the management of resources, good governance, committed and dedicated followers, adequate security, and prioritizing of goals according to the country's needs.

Keywords: Sustainable Development, Millennium Development, Geographical Knowledge, Achievement.

Introduction

The new senior secondary education Geography curriculum was developed by the Nigerian Educational Research and Development Council (NERDC) to be used in the Senior Secondary school in Nigeria. The curriculum was developed most importantly in line with the Millennium Development Goals (MDGs) and compliance with the National Economic Empowerment and Development Strategies (NEEDS) Akinwunmi (2008). Almost immediately after the expiration of the MDGs era, the Sustainable Development Goals (SDGs), were adopted by the United Nations in 2015 as a universal call to action to specifically put an end to global poverty, protect the planet (which is a geographical function), and ensure that by 2030 all people enjoy peace and prosperity.

Geography as a school subject teaches almost every sphere of man's life and his environment, and hence it is said to occupy an enviable position between the natural sciences, humanities, and the social sciences. Furthermore, the 6-3-3-4 system of education whose ultimate aim is to improve the technological development of the country represents a cogent factor that will affect what and how geography is taught in the schools. (Ayeni 1988).

The main goal of development is the improvement of the standard of living of humans and the advancement of societies economically, socially, and politically. Therefore,

development is not purely an economic phenomenon but rather a multi-dimensional process involving the reorganization and reorientation of entire economic, geographical and social systems.

Geographic knowledge though dynamic and constantly changing in nature has been able to grow around a core of certain themes and issues that are hinged on the achievement of, first the millennium development goals and then subsequently, the sustainable development goals. There is therefore need to educate both geographers and non-geographers alike on what constitutes the core of Geography as it relates to sustainable development as well as ways in which the subject can be taught to effectively achieve those goals that will bring about solutions to the country's national development problems (Nightingale, 2018). The issue of underdevelopment or slow rate of development in Nigeria is indeed a paradox considering its generally poor state in comparison with the available vast natural and human resources (Oshewolo, 2010). The richly endowed country which was once one of the wealthiest 50 countries in the world in the 1970s (in the days of the oil boom), has gradually retrogressed and is now among the poorest and most corrupt countries in the twenty-first century.

Geography as a Senior Secondary School Subject in Nigeria

Geography education was introduced in the Nigerian School Curriculum as part of the instrument for achieving national development (National Policy on Education (NPE) 1981). This was what informed its designation as part of the core curriculum at different levels of education upon its introduction. Geography education curricula development agencies such as the Nigerian Educational Research and Development Council (NERDC) and experts further identified and disseminated the curriculum goals or purposes of the subject in the school curriculum.

Geographers have always demonstrated an interest in finding ways to apply their skills to solving real-world problems (Hartshorne, 2012). Hence, according to him, Geography is one of the most important subjects we can teach children today, to prepare them for the major challenges facing not only their immediate society but societies around the world. These problems include; illness/diseases, hunger, poverty, environmental degradation, and unsustainable use of natural resources. There is hardly any problem Nigeria faces today that the teaching and learning of Geography cannot provide critical insight into. Geography, is a subject important for helping students to understand the social world as well as the relations between society and the environment (Esteves, 2014).

Geography is one of the school subjects which is widely recognized as very essential in making students appreciate their environment in general, as well as how they are to live peacefully within it and hence improve it. It is also a very appropriate perspective within which to consider more complex issues such as sustainable development, that involve economic, social, and environmental dimensions at the same time. Geographic learning can therefore be used for sustainable development to help make a difference in a national community like Nigeria.

The changing nature of Geographic knowledge

In the past few decades, there have been so many changes in not only the nature of Geography, which is now concerned to provide an accurate, orderly and rational description of the variable character of the earth's surface (Hartshorne, 2012), but in the nature of geographic knowledge, such as a shift from a declarative or phenomenal study to intellectual study (Golledge, 2002). Geography as a school subject has experienced some major changes over the years.

The importance of Geography has been clearly shown in the senior secondary school Geography curriculum by giving it the function to:

- understand the concept of differential character, a spatial relationship of the surface features of the earth
- understand the concept of man-environment relations
- appreciate and develop a sense of responsibility towards one's society and intelligent interest in the formation of rational goals and policies
- develop a sympathetic understanding of the people of other lands based on the recognition that they may have different assemblies of resources, different goals, and different problems
- organize and formulate principles according to acquired geographic concepts which they use to analyze and interpret spatial problems in their environment
- develop skills and techniques for the accurate, orderly and objective geographical investigation to be carried out both in the classroom and in the immediate environment.

Hence most countries have already recognized the dependence of their social, cultural, and environmental development on their geographical studies. Much as one could therefore, normally expect decades after independence that the foundation for Geography should have been well laid in Nigeria, the truth is that the foundation not only remains rickety but is crumbling (Afolabi, 1978).

According to Hartshorne 2012, every geographical phenomenon changes through time and can be explained temporally and spatially. Today, all over the world there are problems related to providing food provision and security, health, effective energy use, and environmental conservation mostly of resources. Equally important are equality issues and issues of sustainable development. All these can be achieved when man uses available resources in sustainable ways. The study of Geography is, therefore, necessary to learn more about environmental processes and to understand how land use planning can help us to overcome man's problems.

The transition from Millennium Development to Sustainable Development

In September 2000, 189 Heads of state adopted the United Nations Millennium Declaration due to the increasing rate of hunger and poverty in the low-developing countries (LDC). This document was then translated into a roadmap setting out goals to be reached by 2015. The eight-millennium development goals (MDGS) were based on an agreement made at the United Nations conference in the 1990s and represent commitments from both developed and developing countries.

The word development has over the years managed to change and vary in meaning depending on the context in which it is being used especially among the nations of the world. The whole essence of development is to enhance advancement and improvement that is reflective of individuals, and the political, economic, social, and cultural aspects of the state (Durokifa, & Moshood, 2016).

The MDGs which comprised eight major goals and 18 targets were time-bound and expectations were quite high to achieve them. Essentially, the eight goals sought to address key areas of development such as poverty, education, health care, environmental sustainability, and international cooperation. The MDGs were relatively successful and achieved in Sub-Saharan Africa where many countries recorded accelerated progress. For example, in Rwanda poverty reduced drastically from 78% to 44.9% in 2003 with the help of MDGs-induced policies (Sangado, et al, 2003, cited in Durokifa, & Moshood, 2016). They however were unachievable in so many other countries like Nigeria.

The term 'Sustainable development' simply refers to development that is ongoing or that can be maintained without it having any negative or detrimental effect on the future. It is that development that takes place in a given nation-state where the current needs of the people are met with the available resources without those needs and resources having any negative effects on the future needs of the same people, i.e. it is the development that meets the needs of the present without compromising the ability of the future generations to meet their own needs.

Sustainable development Goals (SDGs) were developed to succeed the MDGs by reiterating questions such as, how well did MDGs perform in developing countries? Where are the aims of the MDGs met? If MDGs struggle to achieve 8 goals, how possible and easily will SDGs 17 goals be realized? It is clear from all studies carried out, and all reports submitted that although the MDGs era of fifteen years in Nigeria recorded slight progress in targeted goals, it did not meet the required plausible targets. Therefore, sustainable development goals were introduced almost immediately after in 2016 to try to continue from where the MDGs stopped, (Sachs, 2012; Emas, 2015:2-3; Waziri, 2015, cited in Durokifa & Moshood, 2016).

According to Adedayo (2014), in recent decades, sustainable development, also known as sustainable well-being has been widely embraced by both developed and developing countries as a positive alternative model of development for achieving a balance between the environment and other elements of human needs and rights with economic growth and development. The Sustainable Development Goals is a global call to action to end poverty, protect the earth's environment and climate, and ensure that people everywhere can enjoy peace and prosperity. All of these can be achieved through the teaching of geography.

The SDGs which is an inclusive developmental plan focuses on six essential elements, namely: dignity, human advancement, planet warmth, prosperity, developmental partnership, justice, and equity. These elements just like MDGs aim to end extreme poverty anywhere and everywhere, transform lives, improve the planet, and promote socio-economic development (Ihejirika, 2015, cited in Durokifa & Moshood, 2016). Out of the

six elements mentioned, the first three can conveniently be achieved through the teaching of Geography in the Senior Secondary school. Sustainable development according to UNESCO (2005) is made up of four main dimensions which are intertwined and interrelated. These four dimensions are society, environment, culture, and economy.

The SDGs have come under heavy fire, especially for its numerous goals and targets, which are thought to be too complex to be understood by the general public or influence policy, as well as too ambitious, universal, and absolute to be successful (Langford, 2016; cited in Liverman, 2018). Others draw attention to the aims' inherent contradictions, arguing that many environmental goals must be sacrificed to accomplish growth goals, or that sustainability cannot be realized within the current capitalism-based economic system (Hickel, 2015a; cited in Liverman, 2018).

According to Liverman (2018), Many of the SDGs focus directly on the environment, including biodiversity and ecosystems, climate change, and oceans, while others focus on the main forces driving environmental degradation including energy and water use, food production, consumption, and urbanization; all these are geographical concepts found and based in Geographical knowledge.

Out of all the SDGs, goal 13 is the most important to geographers as it is that goal to take urgent action to combat climate change and its impacts. This goal has five targets that include: strengthening resilience and adaptive capacity to climate-related hazards and natural disasters; integrating climate change measures into national policies, strategies and planning; improving education, awareness raising and human and institutional capacity; implementing climate finance for the developing countries; and promoting mechanisms for raising capacity for effective climate change-related planning and management in least developed countries.

Sustainability, therefore, is all about people and their needs, not just about technology, the environment, or "being green.", but seen through an environmental lens, sustainability is about managing and protecting Earth's natural resources, ecosystems, climate, and atmosphere so that current generations and future generations will have the things they need to survive and also extra for future use. The four pillars of sustainability are; Human, Social, Economic, and Environmental, all of which have some geographical undertone.

Sustainable development according to Granados Sánchez (2011), can be achieved both within and outside of Geography education if the citizens of the country adhere to the following:

- restricting human activities.
- Technological development should be input-effective and not input-utilizing.
- For renewable resources, the rate of consumption should not surpass the rate of production
- All types of pollution should be minimized.
- Make sensible use of natural resources.

Geography and development

Geography as a school subject has a major responsibility in delivering education for sustainable development, especially because the geographical concepts of place and space

are key dimensions for the analysis and pursuit of development and sustainability (Granados-Sanchez, 2011). Geography has been a partner and a critic of the idea and measurement of development—collecting and analyzing data, challenging assumptions and measures of progress, and curating texts and maps that show different aspects of development and environment around the world (Blaikie, 2000; Dorling et al., 2008; Hart, 2001; Seager, 2009; Slater, 1974; Watts, 1984; cited in Liverman, 2018). Yet it has been observed that geography and geographers are rarely seen as major contributors to the general theories and practices of development, despite their concern and distinctive skills (Bebbington, 2002; Peck and Sheppard, 2010; cited in Liverman, 2018). The concept of development concerning a country mainly has to do with economic development. This is because no individual, community, or nation can survive without a continuous flow of goods and services. The contradictory nature of many of the goals suggests that the growth goals cannot be met without sacrificing many of the environmental ones or that sustainability cannot be achieved under the current economic model of capitalism (Hickel, 2015, cited in Liverman, 2018).

Geographers are known to study spatial patterns in development. They try to find by what characteristics they can measure development by looking at economic, political, and social factors. They seek to understand both the geographical causes and consequences of varying development and the ways by which they can be sustained.

The three types of development that can be studied in Nigerian Geography to bring about sustainable development are:

- Social development – relating to the development of the people of a particular place. (population growth, life expectancy, poverty and inequality, cultural diversity and identity, living conditions and housing, security and crime, mobility, social welfare and quality of life, literacy, education, ICT access, corruption, and governance.
- Economic development - relating to the finances and wealth of the country. (GDP, research and development, sustainable public finance, corporate responsibility, mining and quarrying, energy use and consumption, renewable energy production, transportation, water bodies and fisheries, development of rural areas, etc.
- Environmental development – relating to the quality of people vis-a-vis, air, water, soil, etc. (pollution, climate change, biodiversity protection, desertification, deforestation, waste generation, land-use change, waste management, management of water resources, natural hazards, etc. Granados Sánchez (2011).

Of these three aspects, which make up the whole of sustainable development, the environment is the basic life-giving support mechanism behind the human activity, society is the organisational base of institutional structures and agents, and the economy comprises all goods and services. As is the case when one looks through a telescope, a geographer must look at all three of these aspects at the same time to get a clear view of sustainable development, as they are interrelated and interdependent upon each other (Granados-Sanchez, 2011).

The concept of economic development is mostly a qualitative process that has to do with achieving sustainable rates of growth of income per capita which would enable a nation to expand its output at a rate faster than the growth rate of its population. This concept has over the years come to be redefined in terms of the reduction or elimination of poverty, inequality, and unemployment. As long as there is development in a country, there will be desirable changes that improve people's lives and brings about better and more humane lives. Economic development, therefore, is not necessarily only about the increase in the output of goods and services, but more importantly about how this increase improves the quality or the living standard of the people. Hence, economic development means growth, plus desirable social and institutional changes.

As in other countries of the world, the problem of development in Nigeria is that it must take place in space over well-defined territories. Therefore, whether one considers economic, social, or political development, in the final analysis, there would be the need to organize or reorganize space (Filani 1999). Herein lie the challenges to the future of geography in Nigeria. In a bid to ameliorate the grave consequences of poverty and developmental disorder, as well as make some impact in the achievement of the millennium development goals, successive Nigerian governments have designed and implemented numerous policies and projects some of which have Geographical bases. These developmental programmes date far back to the 1970s and include notable ones like:

1. To combat poverty and food production, Green Revolution was implemented in 1980, and Operation Feed the Nation [OFN] in 1976.
2. The Directorate of Foods, Roads, and Rural Infrastructure [DFRFRI] was established in 1986 to build adequate roads, supply rural areas with water, and provide electrification for residents;
3. The Poverty Alleviation Programme (PAP), which was launched in 2000 to address the issues of rising unemployment in society, boost economic productivity, and ensure Nigerians have access to basic necessities of life such as affordable health care, a sanitized environment, quality education, among others, was established in 1986 to provide financing, training, and guidance for the unemployed youths (Chukwuemeka, 2009; Adebayo, 2012: 2-3; Onwe and Chibuzor, 2015:227-230; cited in Durokifa and Moshood 2016).

Notwithstanding these development programs, the genuine progress anticipated has not yet materialized; instead, inequality in income, poverty, and child mortality have all not only come to stay, but have increased.

MDGs Report in Nigeria

MDG GOALS	Progress Towards Target	Conclusion
Eradicate extreme poverty and hunger	Appreciable progress especially in reducing hunger and underweight children	Goal not Met
Achieving Universal Primary Education	Slight progress mainly because of the insurgencies and insecurities in some parts of the country	Goal not met
Promoting Gender Equality and Women Empowerment	Satisfactory progress in areas in the ratios of girls to boys in school and Weak progress in women empowerment	Goal not met
Reduction of Child Mortality	Satisfactory Progress	Goal not met
Improvement in Maternal Health	Appreciable Progress in Maternal Mortality Ratio. Weak Progress in other indicators	Goal not met
Combating HIV/AIDs, Malaria and Other Diseases	Weak Progress	Goal not met
Ensuring environmental Sustainability	Appreciable progress in the provision of safe drinking water. Weak progress in other Indicators	Goal not met
Developing Global Partnership for Development	Appreciable and Satisfactory Progress	Goal met

Source: Nigeria MDGs Report

The term development is studied extensively in Geography majorly under population topics. It is a known fact that a productive population helps bring about economic growth and development and rapid population growth will ultimately result in downward economic development. The population of Nigeria today is estimated at well over 200 million (making her the largest black nation in the world and the largest country in the Commonwealth, after India and Pakistan) which is quite high considering the available resources and the country's economic development. Some of the resultant effects of high population on Nigeria's economic development include the following:

- Inadequate food supply and pressure on the available ones. A very high percentage of Nigeria's population is currently living on less than one dollar a day, making it more and more difficult to feed. Even though the large and growing population of

the country is capable of providing the food and agricultural produce needed to sustain the needs of the people, Nigeria has consistently remained dependent on the importation of nearly everything; from food to clothing and even premium motor spirit (PMS) also known as petrol.

- Although Nigeria is rich in petroleum resources, there are a variety of other resources available for both local use and export, such as; tin, columbite, lead, gold, iron, natural gas, coal, nitrite bitumen, uranium, and other economically valued mineral resources scattered over the national territory. As well as the large expanse of agricultural land available for various forms of cultivation
- Only a small percentage of the population is working or gainfully employed, leading to overdependence on them by the aged (retirees) and the underaged (children) and hence lowering the standard of living. Therefore, the problem of unemployment is a major resultant effect of the high population.
- Inadequate provision of housing and extremely high rent mostly in the cities and urban areas. Government is unable to provide shelter at affordable rates and so there are a lot of homeless people around.
- Insecurity issues all over the country with kidnappings and abductions being the most prevalent. The only means of transportation that has not been infiltrated so far is 'air', as both road and rail travels are no longer safe in the country.
- The emergence of ghettos, slums, and squatter settlements has also been on the increase, especially in major towns and cities in Nigeria such as Lagos, Ibadan, and Kano.
- Environmental pollution is daily on the increase in Nigeria, with polythene/cellophane and polystyrene products topping the list of environmental pollutants.

Inasmuch as the teaching of Geography may play a major role in the achievement of sustainable development goals in Nigeria, there are some geographical obstacles to the achievement of these goals. These include; extreme poverty, high unemployment rate, high percentage of out-of-school children, climate change, internal conflict and insecurity, having poor or no capital budget to plan and complete economic activities, social inequalities, poor waste management and poor environmental management, natural calamities, (like flooding and erosion), absence of peaceful societies, the prevalence of ethnic and religious clashes, rapid population growth rate, rapid urbanization, deforestation and environmental impact of extractive industries. Others include having a business climate which is characterized by erratic power supply, slow rate of economic growth, unsustainable consumption and production, rising misappropriation and misallocation of scarce resources, poor governance characterized by inequality, inadequate public services like health care, clean portable water, good motorable roads, and sanitation, corruption and other challenges such as the 2020 COVID-19 pandemic (Imasiku 2021). These challenges

to sustainable development are influenced by socio-economic, demographic/population, technological, and environmental issues which are the primary changes that transform society and invariably individuals and can be understood and learnt through the teaching of geography.

Geography is regarded as the science of sustainability, and hence it has an increasingly important role to play in developing the knowledge and the skills to equip future generations with the tools to adapt to and mitigate potentially catastrophic global environmental change (Granados-Sanchez, 2011). Also, the development of a sustainable plan should include a school program or curriculum which last many years and that set targets and actions taking into account the local community.

Conclusion

Sustainable development is that development that keeps in check the present generation's needs without neglecting the future generation's capability to address their own needs. Hence, the way forward is to ensure that because of the importance of Geography in the attainment of sustainable development of our nation (based on the 17 goals), its teaching should begin much earlier, either in the upper primary or in the Junior secondary school, and that its status as a school subject be moved from being a minor or elective to a major or compulsory subject. Sustainable development through the teaching of Geography can provide solution to how the nation plans its economic activities and growth without damaging the environment and at the same time ensure a safer habitat is maintained for future generations to also build up their economies and societies without neglecting the environment. Therefore, teaching Geography for sustainable development is considered a new generation of critical Geography education that has emerged with the changing nature of Geography. However, an important feature of teaching geography for sustainable development in schools is in the variety of innovative approaches to adopt. As a corrective measure, therefore, the paper recommends that teaching geography for sustainable development must be considered as part of a new generation of critical geography education, which may be labelled as emancipation, social reconstruction, radical geography, or even socially critical geography.

References

- Adedayo, A. (2014, April 8-12). *Adverse Geography and the Challenge of Sustainable Development in Nigeria*. A revised version of the paper presented at the 2014 Annual conference of the Association of American Geographers (AAG), held in Tampa, Florida, USA
- Akinwunmi, F. S. (2008, July 20). Millenium development goals: the place of education in Nigeria
<https://www.researchgate.net/publication/343281948>
- Ayeni, B. (1988, February 10-12). *Geographical knowledge, national development, and the teaching of geography in schools*. A paper prepared for: the Nigerian Geographical Teachers' Association seminar/workshop of the South Western zone, Delta State University, Abraka campus.
- Durokifa, A. A. & Moshood, A. B. (2016). *Evaluating Nigeria's Achievement of the*

- Millennium Development Goals (MDGs): determinants, deliverables, and shortfalls. Africa's Public Service Delivery and Performance Review* 4(4):656 DOI:10.4102/apsdpr.v4i4.147
- Esteves, M. (2014, February 21). *Making sense of the world through geography*. 5th World Conference on Educational Sciences - WCES 2013. Elsevier Limited, Procedia - Social and Behavioral Sciences 116, 2760 – 2764
- Granados-Sanchez, J. (2011). Teaching Geography for a Sustainable World: A Case Study of a Secondary School in Spain. *Review of International Geographical Education Online* © RIGEO 1(2), 151-168
- Filani, M.O. (1999, January-December) Reflection on 50 Years of Geography in Nigeria. *Annals of the Social Science Academy of Nigeria*, 11, 45-64
- Golledge, R. G. (2002, March) The nature of geographic knowledge. *Annals of the American Association of Geographers Taylor & Francis Routledge*, 92(1), 1-14
- Hartshorne, R. (2012). The Nature of Geography. A critical survey of current thought in the light of the past. Rawat publications, New Delhi, 140-143
- Imasiku, K. (2021). Organizational Insights, Challenges, and Impact of Sustainable Development in Developing and Developed Nations. Chapter Metrics Overview, open access peer-reviewed chapter. DOI: 10.5772/intechopen.93748
- Liverman D. M (2018). Geographic perspectives on development goals: constructive engagements and critical perspectives on the MDGs and the SDGs. *Dialogues in Human Geography* 8(2): 168–185.
- Nightingale, A. J. (2018). Geography's contribution to the Sustainable Development Goals. *Dialogues in Human Geography*. 8(2) 196–200.
<https://doi.org/10.1177/2043820618780790>
- Oshewolo, S. (2010). Galloping Poverty in Nigeria: An Appraisal of the Government's Interventionist Policies' *Journal of Sustainable Development in Africa*, 12(6), 264-274

HOST TEACHERS' PERCEPTIONS OF THEIR ROLE IN THE DEVELOPING OF PROFESSIONAL SKILLS IN PRE-SERVICE TEACHERS

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Abstract

It is mandatory that pre-service teachers spend a minimum of 32 weeks over a four-year training period in a real-time context to learn and practice the skills required from a teacher under the guidance of a host teacher. Teachers hosting pre-service teachers are required to support them in the development of their professional skills. Despite the different meanings and views attached to mentoring, a host teacher's focus should be to come alongside the pre-service teacher as a guide and knowledgeable other in the construction of the type of knowledge and skill required from teachers. The focus of this paper is on how host teachers perceive their role as guides and knowledgeable others in the development of professional skills in pre-service teachers. The theoretical framework used in this research is Vygotsky's Constructivist theory. The study used a qualitative approach from an interpretivist perspective. Eight participants from urban primary schools in the Buffalo City Metropolitan area were purposively sampled. Data was collected through semi-structured interviews and document analysis. The findings revealed that host teachers experienced difficulties with mentoring due to a lack of formal/informal training; host teachers regarded pre-service teachers as relief teachers and that there is a lack of commitment amongst pre-service teachers who perceive practice teaching sessions as a compliance exercise. The study recommends the constructive rethinking and strengthening of purposeful partnerships between the role-players in the development and training of pre-service teachers.

Key words: Host Teachers; Mentoring; Pre-Service Teachers; Professional Skills

Introduction

School experience is an integral component of teacher training as it permits student teachers to experience the actual teaching and learning (Darling-Hammond, 2006; Komba & Kira, 2013). The purpose of the school experience is to provide the student teachers with an opportunity to apply their acquired educational understanding and aptitudes in real-life situations as part of their preparation. Hence, the experience is seen as some sort of internship. This internship (field experience) is a full-time supervised instructional classroom experience course which is compulsory for all student teachers to qualify as teachers. This supervision takes place under the guidance of an experienced, professionally qualified teacher, who assumes the role of mentor and coach to a student teacher.

Different training institutions have different expectations of what the role of the mentor entails. According to Ambrosetti and Dekker (2010), the different roles include amongst others (i) informing students of the rules/policies of the school; (ii) guide students in their professional learning development; and (iii) allow the students to observe teachers'

teaching(different subjects); (iv) provide the students with honest and constructive feedback regarding all aspects of their developing professional skills; (v) provide the university with an honest, constructive assessment of the student teacher's professional conduct; and (vi) advise students on classroom management and the development of effective discipline strategies and to involve students in the non-academic functions of what it means to be a teacher.

Dlengizele's (2020) notes that there seems to be a literature vacuum on how mentor teachers understand their role in the development of a pre-service teacher. Despite overwhelming evidence that mentor teachers spent the most time with pre-service teachers during their practical training and that their impact on the forming of a future teacher-in-the-making, is therefore undeniable (Kiggundu & Nayimuli, 2009; Samkange, 2015). Dlengizele (2020) argues that little research has been conducted on how mentor-teachers understand and therefore enact this pivotal role. This paper presents the research findings of an empirical study which aimed to determine how mentor teachers perceive their mentoring role as part of the school experience component of teacher education and training at four selected primary schools in the Buffalo City District in East London, South Africa.

Review of the Literature

Literature was reviewed in the following areas, variations of mentoring formats available for use in teacher education, preferred institutional mentoring approaches, mentoring roles typically engaged in by mentor teachers and the challenges brought about by the mentoring experience for both mentors and mentees.

Forms of mentoring used in teacher education

There are several mentoring approaches in teacher training. The choice of mentoring approach depends on the needs and goals of the teacher being mentored, as well as the context of the school or educational institution. One of the most used forms of mentoring is induction mentoring. This type of mentoring is aimed at orientating new teachers how to navigate the school environment, establish relationships with colleagues and students, and develop effective teaching practices (Ingersoll & Strong, 2011; Wong & Wong, 2014).

In collaborative mentoring, the focus is on establishing a partnership between the mentor and the mentee, where they work together to identify the mentee's goals and develop strategies for achieving them. This form of a mentoring relationship is typically initiated by the mentee seeking a relationship with the more knowledgeable (Foltes, 2013; Garmston & Wellman, 2016).

In peer mentoring, experienced teachers are paired with their less experienced colleagues. The focus in this type of mentoring is on sharing knowledge, skills, and experience to support the growth of the mentee (Johnson, 2008; Zepeda, 2012) and would often be part of an institution's deliberate effort to engage in some form of ongoing professional development. When institutions engage in content-specific mentoring, the aim is to support teachers in a particular subject area or content area. Mentors assigned to mentees in this approach are typically subject-matter experts who can provide guidance and support in developing effective teaching practices in the targeted content area (Darling-Hammond et

al., 2009; Wilson, 2013). The relationship between a host teacher and a pre-service teacher placed in his/her care has as its focus the development of effective teaching practices in targeted content areas.

In instructional coaching, a mentor works closely with the mentee to observe classroom practices, provide feedback, and co-plan lessons to improve the teacher's instructional practice (Knight, 2018; Neufield & Roper, 2003). In reflective mentoring, the mentee is encouraged to reflect on his/her own teaching practice, identify areas for growth and develop strategies to address the gaps. The role of the mentor is to provide guidance and support throughout the support process (Schön, 1987).

Mentoring models used by training providers.

In Australia, there has been a change from the practice of a supervisory pattern to a mentoring pattern over the past decade (Ambrosetti & Dekkers, 2010). Supervisory and mentoring approaches are two different approaches to teacher training, and they have distinct characteristics.

The supervisory approach to teacher training is characterised by a top-down approach in which the supervisor (the more knowledgeable other) observes the novice teacher's performance and provides feedback for improvement. The supervisor often has the power to make decisions and enforce policies, and the emphasis is on compliance with established standards and procedures. The approach although meant to support the novice teacher in his/her professional growth could easily become punitive if the atmosphere within which the support is provided not collegial. While this approach can be effective in ensuring that teachers adhere to established standards, it can sometimes lead to a culture of compliance and discourage risk-taking and innovation and the development of a personal teaching style (Goodwin & Hubbell, 2013); (Leithwood & Riehl, 2003).

On the other hand, the mentoring approach to teacher training is characterised by a supportive and collaborative relationship between the mentor and mentee. The mentor acts as a guide and provides support and advice to the mentee as they develop their skills and expertise. The focus is on developing the mentees' strengths and helping them to reach their goals, rather than simply correcting weaknesses. This approach is often personalised and tailored to the individual needs and goals of the mentee, which can help to create a culture of innovation and growth field (Cruz, 2009). Most educational institutions today are recognising the value of a mentoring approach to teacher training, and use mentoring in one way or another, as it can lead to a more supportive and collaborative learning environment and can support the ongoing growth and development of teachers.

Although not all student-teacher education platforms use a mentoring model, most institutions of higher learning involved in teacher education and training use some form of mentoring in one way or another. Classroom teachers assigned as mentors to guide pre-service teachers are referred to as 'mentor teachers' rather than the more traditional term of 'supervisor'.

A study by Maphalala (2013) found that in South Africa the common custom is assigning mentors to pre-service teachers. This activity is organised and coordinated by the heads of departments at the specific schools. Where the school does not have sufficient heads of departments, senior teachers would be earmarked and assigned as mentors.

Mentor teacher activities

Chimenga (2016) reported that in Zimbabwe, mentors improved their mentees' skills in teaching through demonstrations and orderly inspections. In Kenya, the mentor teachers role is to scrutinise the scheme of work, monitor and guide lesson plans, observe the pre-service teacher whilst teaching and guide in classroom administration matters. In addition, mentor-teachers would also check the assessment approaches used in the assessment of the target subject area (Ochanji, Twoli, Bwire & Maundu, 2017).

In Singapore, school-based mentors perform a meaningful part in assisting and aiding to grow and build up the student-teachers. During teaching practice, student teachers are supported by focused mentoring from knowledgeable educators, through demonstrating, co-preparation, orderly inspections, re-iterated chances for preparation, and regular advice. The South African Department of Education has well documented policies, which guide how pre-service teachers should be trained for the classroom. These policies comprise of the National Policy Framework for teacher Education and Development in South Africa, (2007), Minimum Requirements for Teacher Education Qualifications (DHET, 2011 revised 2015) and National Education Policy on Recognition and Evaluation of Qualifications for Employment in Education (DBE 2017). In terms of the National Policy Framework for teacher Education and Development in South Africa (2007), pre-service teachers must place be in schools which have been recognised as outstanding sites of education. The aim is for these sites to supplement and perfect pre-service teachers' theoretical knowledge of how classrooms work, the day-to-day tasks within a school and a real schooling condition. The exponential increase in the number of preservice teachers to be placed however, has made it impossible for training providers to ensure that all preservice teachers are placed at schools recognised as being outstanding sites of excellence. The current practice is that preservice teachers in years one to three are encouraged to choose their own school experience sites, whilst fourth year preservice teachers are placed by the training provider.

Difficulties and challenges in the mentor-mentee relationship

Heeral and Bayaga (2011) reported that teaching practice efficacy in rural South Africa was limited by remoteness, low and uneven levels of school-based teacher proficiency, assistance, and encouragement. Similarly, Prince, Snowden, and Matthews (2010) suggest that pre-service teachers find the teaching practice phase in South African rural schools traumatic, isolated, and difficult because of insufficient assistance from the schools and host teachers.

Bubb (2010) affirms that the behaviour of mentors has a negative effect on the student-teacher in the learning process. In a study conducted by Rosemary, Richard and Ngara (2013), it was noted that among the challenges indicated by pre-service teachers are that mentors give conflicting guidelines which result in a lack of consensus between lecturers

and mentors. Komba and Kira (2013) found that certain mentors displayed improper behaviour and were involved in unprincipled undertakings like not attending school, not observing school time or sending learners on private tasks during classes. According to Mokoena (2013), this is counterproductive and is not in the spirit of mentoring. Azeem (2011) found that mentors often delegate their mentoring responsibilities, are not present in class, and fail to check pre-service teachers' lessons on a regular basis.

Research Design and Methodology

Design

A case study design was adopted to gain a greater understanding and insight into the perceptions of host teachers and pre-service teachers regarding the mentoring role of host teachers during teaching practice. This statement resonates with Cohen et al. (2018) who state that case studies enable researchers to explore “real-life situations of participants.”

Research Approach

The researcher used a qualitative research approach to explore the mentoring role of host teachers in respect of their mentoring strategies, the benefits of these strategies and the challenges experienced by host teachers and pre-service teachers during the mentoring process. Alase (2017) supports the use of a qualitative research approach when stating that “a qualitative research approach allows researchers to gain a complete understanding of the phenomenon being investigated from the participants' perspectives.”

Participants

Purposeful sampling was used to select information-rich participants. Creswell (2012) asserts that purposeful sampling benefits the research process in terms of identifying participants that might provide valuable insights in respect of the purpose, research questions and objectives of the study. The participants in this study comprised 8 primary school teachers and 8 third- and fourth-year registered students for the Bachelor of Education degree in a higher education institution. A pre-requisite for the sampling of teachers was that teachers had to have experience in hosting pre-service teachers during teaching practice. The rationale for selecting third- and fourth-year pre-service student teachers was based on them being more mature in terms of teaching practice in schools.

Data collection

Data was collected through individual semi-structured interviews and document reviews. Yin (2014) posits that semi-structured interviews with pre-determined questions allow researchers to probe for more in-depth information. Documents reviewed comprised student portfolios, lesson plans and supervision evaluation and assessment forms developed and designed to incorporate host teachers' comments on the knowledge, skills, and performance indicators that have to be mastered and developed during teaching practice.

Data Analysis

A thematic data analysis approach was employed to analyze and interpret the tape-recorded data collected. All interviews were thoroughly transcribed, coded and categorized into specific categories and themes guided by Vygotsky's Constructivist theory.

Results

The results were collected from 8 primary school teachers and 3rd and 4th-year pre-service teachers. The data for the primary school teachers are presented as their actual responses, whilst the data for the pre-service teachers were gathered from their feedback contained in the summative portfolio, which they submit to the training institution at the end of the school practice period.

Two respondents were adamant that they possessed high-quality mentoring skills when asked about their mentoring approach. They confirmed that the supervision strategies they provided to pre-service teachers included inducting the pre-service teachers into the culture of the school. One of the participants explained how she used her leadership skills to adopt and offered a role modelling strategy in the following way:

We have displayed good leadership skills when we introduced them on how things are done in our school and explain the expectations of the school. This we have done by using different strategies like being good examples to them and did everything professionally. We know that, the role of the mentor is to show pre-service teacher how to connect what they learnt as theory in university into practice in schools.

The second participant reported how he uses organization skills as a way of offering knowledge and skills:

Yes, we love teaching, the learners and the school and we do excellent mentoring to pre-service teachers, we displayed organization skills and encouraged excellence as a mentoring strategy and that is part of our job as teachers, we also apply a nurturing strategy because, a mentor is a person who shows direction in designing ehhh.... lesson plans, lesson presentation and also... the use of resource materials.

In the contribution that follows, HT4 displayed evidence of a hands-off approach in his mentoring skills and strategies. This, he claimed, was not to impose on the pre-service teacher his way of doing things. This participant demonstrated this by listening and supporting the pre-service teacher, which he regards as very important in providing effective mentoring skills and strategies. The following captures his account:

For me, okay... according to my knowledge and experience is that because these are university students who have been taught how teaching works, so my role is to allow him to do what he was taught at university and whenever he has a question he must ask and I'll assist. By so doing I offered a listening skill and used a supporting strategy to the pre-service teacher. When you are mentoring you allow this teacher to see the reality of teaching through the strategy of offering your guidance with classroom activities and this is exactly what we do.

Another participant emphasised that starting small and staying non-judgmental in dealing with the pre-service teacher is important. She articulated this as follows:

Mentoring is not about selfishness, this child needs to be assisted using a strategy of starting small so as not to overwhelm her and I also offer non-judgmental skills that I have as a teacher, to help her to be where I am today.” She is innocent, she is just learning the craft. The strategy I use is to show her how everything has to be done in the classroom and I used both setting of goals and measuring success strategies in every task I have given her and I used my skills to offer her challenging opportunities.

As part of the triangulation process, the researcher analysed the feedback provided by the same group of mentor teachers to pre-service students. Participant, HT1 in her written feedback commented wider than just on the display of pedagogical content knowledge in the following extract. The support and encouragement is clearly evident in the comment.

I encouraged you not to be afraid to be unique as I’m also like that. Allowing you to lead prayers in the morning as you had expressed your desire to do so, showed me that you have mastered being unique and not being afraid. I supported you to do so and thereby allowed you to demonstrate confidence and leadership even in your classroom. Why are you now presenting a “safe lesson” that is the same as anybody else?

However, the positive views expressed by host teachers were contradicted by the pre-service participants who formed part of the focus group interview. This specific pre-service teacher felt that he was not receiving adequate/enough support from his host teacher and that the host teacher was not there when he needed her assistance. This he expressed in the following extract:

What I did not understand from my host teacher was that, whenever I had a difficulty and needed her assistance, she always said, what are you learning from university? I never went to university, but she would sometimes help, and I always felt maybe our educational qualifications were an issue. This was a deal breaker for me...you know...

The same kind of sentiment was articulated by another pre-service participant in the comment below:

I was told to do as I was told at university and if I have problems, ask. I think host teachers do not really have mentoring strategies and skills to mentor and guide us. They are supposed to show us the acceptable teaching practices and that would be applying goal setting as a mentoring strategy and afterwards afford us a chance to practice what they have shown us and give us constructive feedback where we did not meet the acceptable standards.

The pre-service participants' views were supported when reviewing the comment sections on their lesson plans. Most of the lesson plans where host teachers observed lessons were empty and without any written feedback.

Discussion of the results

The feedback from the mentor teachers' responses indicates that despite not receiving formal training for the role, most of them feel confident that they are able to support and mentor a pre-service teacher placed in their care. The basis of the confidence emanates from years of teaching experience coupled with good leadership skills, which are viewed as appropriate substitutes for the lack of training as mentors.

Mentor teachers believe that good leadership and experience are essential requirements in the effective development of professionalism in pre-service teachers. They see their role as guiding pre-service teachers in terms of the school's expectations, teaching strategies and general professional conduct. This they believe requires them to be modelled which underscores apprentices or novice professionals learn more from what they observe than what they are told. In demonstrating good educational practice, novice teachers observe professionals enacting theory. For the group of participants in this study, essential ingredients for effective mentoring include leadership skills and hands-on teaching experience.

Evident from the responses mentor teachers felt duty-bound to share their own skills with pre-service teachers as part of the mentoring process. In the above extracts, one of the participants spoke about sharing his organisational skills with pre-service teachers. This host teacher views organisational skills as paramount for effective teacher development. Thus, this host teacher uses his own organisational skills as a strategy to guide and nurture pre-service teachers. His mentoring strategies are therefore passion driven which inevitably encourages pre-service teachers towards excellent lesson planning and lesson presentation. The importance of adopting a nurturing approach in the mentoring of pre-service teachers is expressed by HT2 (mentor teacher). The approach requires being patient when clarifying goals whilst being specific and focus on what exactly the pre-service teacher ought to master during school experience. Consequently, the host teacher identifies the needs which include effective organisational skills, effective lesson planning and lesson presentation towards pre-service teachers that should be nurtured, guided and assisted. It would seem as if the focus of this host teacher is purely on role-modelling when he uses terms like "*display organizational skills*": "*encourage*" and "*show direction*" which fall short of professional dialogue and conferencing with pre-service teachers. However, "*nurturing*" points to a hands-on developmental approach in relation to all the above essential elements within the classroom environment which captures the positive qualities of good mentoring strategies.

Above, the assertion by HT4 links the role of the mentor to solving problems experienced by student teachers." *University students know how teaching works*" ...and...*allow them to do what they were taught*", is evident of the fact that pre-service teachers are viewed as

“knowledgeable” in terms of teaching and therefore allowed to experience the transition from pre-service to full teachers on their own.

This host teacher’s approach may also serve as evidence of a mentor who wants the pre-service teacher to take responsibility for his own learning. The narration above shows that this mentor teacher was according to the pre-service teacher not sufficiently displaying good communication skills; ongoing sustained professional guidance and support; and demonstration of good teaching strategies to gain students’ attention. Despite the willingness to assist students, this mentoring strategy seems to fall short of effective professional guidance, as the host teacher appears to be “guiding on the side”. The role-mentoring appears to be only restricted to deriving solutions to problems pre-service teachers may face during practicum. This mentoring strategy is purely based on “*listening skills*”; and problem-solving, which may be interpreted as “guiding on the side”. Furthermore, allowing pre-service teachers to “*do as they were taught*” points to a strategy which allows pre-service teachers ample opportunities to translate theory into practice with the support of the host teacher.

HT1 noted that the host teacher encouraged the pre-service teacher to think for themselves and celebrate their diversity. An environment of trust was built between them and a stronger bond between the host teacher and the pre-service teacher as a role model was established because “*she supported her*”. Encouraging the preservice teacher to critically self-reflect, try something out of the ordinary and so develop their own unique style rather than copy others seems to be HT1’s intention. This is evident from HT1’s comment that a specific lesson was a “safe lesson”. as it is not different from other pre-service teachers’ lessons.

The contribution of PT5 reveals that the host teacher has a level of knowledge expectation from the pre-service teacher which clearly points to a passive mentoring approach that results in pre-service teachers encountering/feeling difficulty in communicating with mentors. Phrases like “*What are you learning from university?*” and “*...but she would sometimes help*” can be interpreted as an apparent reluctance and unwillingness to assist pre-service teachers. Thus, host teachers do not fulfil their primary role, which is to model and to guide pre-service teachers towards good teaching skills and pedagogical content knowledge. This nonchalant attitude of host teachers can also be viewed as counterproductive as it hinders the development and preparation of prospective new members to the education profession for the complex challenges of today’s classrooms. This may also be seen as the host teacher trying to get the student teacher to actively reflect and make the connection between theory learnt in classrooms and the practical application required from the pre-service teacher in the classroom. In a different view, the pre-service teacher’s contribution suggests that he understood his role as a mentor as that of an advisor. For this host teacher, pre-service teachers were to consult with host teachers if they anticipate any problems during the practical experience. From what the pre-service teacher says is that the host teacher follows a passive approach.

He waits for the student teacher to approach him instead of taking an active role in the development of the student teacher. When the student teacher approaches the host teacher

for advice, he sometimes does not get assistance or guidance but rather a comment that is discouraging the pre-service teacher to consult, should there be another problem that arises. The pre-service teacher's analysis could be seen as fair as it seems that host teachers despite their qualifications are still lacking effective and appropriate mentoring skills.

Data gathered from pre-service teachers, however, contradicted the views of host teachers. PST7 felt that strategies used by host teachers were ineffective. Generally, the perception amongst the interviewed preservice teachers was that mentor teachers' ineffectiveness in mentoring and role modelling has a negative effect on the development of pre-service teachers' ability to bridge the gap between theory and practice. Preservice teacher respondents felt that a lack of constructive feedback is a serious stumbling block in the effective mentoring of pre-service teachers. The teaching practice window is a crucial moment for pre-service teachers to get an opportunity to develop on-the-job professional competence and to experience the transition from students to full teachers.

Conclusion and recommendations

This study aimed to find out from 8 host teachers what they regarded as their roles and responsibilities in mentoring pre-service teachers. In the process, the researcher could interpret from the feedback how this group of host teachers perceived what their task is, the impact they felt it had on the development of those in their care, and whether pre-service teachers experienced mentoring in the same way.

From the responses, this group perceived their mentoring role to include elements of induction mentoring, peer mentoring and instructional coaching. The importance of establishing a collaborative relationship between mentor and mentee is emphasized. None of the participants indicated that they see their roles as overseers or supervisors in the training process. This could possibly explain why mentor teachers are so reluctant to provide written feedback on the lesson observations. The research indicates that pre-service teachers want to know what forms the basis for the mark that they are awarded for formal assessment of their teaching performance.

The comments by mentor teachers, when pre-service teachers seek help with translating theory into practice, could be interpreted in many ways. Firstly, one could interpret it as the mentor teachers' intention is to empower preservice teachers encouraging them to think for themselves. Secondly, one could assume that it is an indication of the host teachers' reluctance to confuse or influence the student with their own preferred ways of doing things. Thirdly, it could be insecurity on the part of the host teacher not being sure whether the pre-service teacher has been introduced to an alternative up-to-date method which they may not be aware of and lastly, it could be interpreted as host teachers not wanting to help or get involved.

What is clear is that the comment is regarded by pre-service teachers as a 'deal-breaker' who interprets the comments as the host teacher being unwilling to help or the host teacher being unsupportive or difficult. The recommendation that comes from this specific feedback is that the gap between mentor teachers and training providers ought to be tightened so that there is a seamless transition between the two training sites (university

and school). It is important that as partners in the process of teacher education and training, lecturers and mentor teachers speak the same language and hold the same expectations from pre-service teachers. This, therefore, calls for training providers to share with mentors what they expect pre-service teachers to experience and provide ongoing support to mentor teachers whilst student teachers are undergoing practical training during school experience.

References

- Alase, A. (2017). The interpretative phenomenological analysis (IPA): A guide to a good qualitative research approach. *International Journal of Education and Literacy Studies*, 5(2), 9-19.
- Ambrosetti, A. &. (2010). The interconnectedness of the roles of mentors and mentees in pre-service teacher education mentoring relationships. . *Australian Journal of Teacher Education (Online)*, 35(6), 42-55.
- Azeem, M. (2011). Problems of prospective teachers during teaching practice. . *Academic Research International*, , 1(2), pp 308-316.
- Bubb, S. (2010). *The guide for New Teachers*. New York: Routledge Falmer.
- Chimenga, D. (2016). Student teachers' perspectives on mentoring practices during their teaching practicum in Zimbabwean schools. . *Global Journal of advanced research*, 3(5):405-410.
- Cruz, B. C. (2009). The use of mentoring as a strategy for enhancing the professional development of teachers: A literature review. *Teachers and Teaching: Theory and Practice*, 15(3), 327–344.
- Darling-Hammond, L. (2006). Constructing 21st-century teacher education. *Journal of teacher education*, 57(3), 300-314.
- Darling-Hammond, L. W. (2009). *Professional learning in the learning profession: A status report on teacher development in the United States and abroad*. . National Staff Development Council.
- Dlengenzele, A. (2020). The role of mentor-teachers in supporting student-teachers. Pretoria, Gauteng, South Africa: https://repository.up.ac.za/bitstream/handle/2263/78452/Dlengenzele_Role_2020.pdf?sequence=1.
- Foltos, L. (2013). *Peer coaching: Unlocking the power of collaboration*. Corwin Press.
- Garmston, R. J. (2016). *The adaptive school: A sourcebook for developing collaborative groups (3rd ed.)*. . Rowman & Littlefield.
- Goodwin, B., & Hubbell, E. .. (2013). *The Principalsip: A Reflective Practice Perspective*. Pearson Education.
- Heeral, P. J., & Bayaga, A. (2011). Preservice teachers' experiences of teaching practice: Case of a South African University. . *Journal of social sciences*, 28(2): 99-105.
- Ingersoll, R. M. (2011). The impact of induction and mentoring programs for beginning teachers: A critical review of the research. . *Review of Educational Research*, 81(2),201 - 233.

- Johnson, L. J. (2008). Peer mentoring in teacher education: A review of the literature. . *Mentoring & Tutoring: Partnership in Learning*, 16(1), 5-20.
- Kiggundu, E. M. (2009). Teaching practice: A make or break phase for student teachers. *South African journal of education*, 29(3).
- Knight, J. (2018). *The impact cycle: What instructional coaches should do to foster powerful improvements in teaching*. . Corwin Press.
- Komba, S. C. (2013). The effectiveness of teaching practice in improving student teachers' teaching skills in Tanzania. . *Journal of Education and Practice*, 4(1), 157-163.
- Komba, S. C., & Kira, E. S. (2013). The effectiveness of teaching practice in improving student teachers' teaching skills in Tanzania. *Journal of Education and Practice*, ., 4(1), 157-163.
- Leithwood, K., & Riehl, C. (2003). *What we know about successful school leadership*. . Philadelphia, PA:: Laboratory for Student Success, Temple University.
- Maphalala, M. (20193). Understanding the role of mentor teachers during teaching practice session. *International journal of Edu Science*, 5(2):123-130.
- Neufield, B. &. (2003). *Coaching for learning: A practical guide for encouraging learning*. Sage.
- Ochanji, M., Twoli, N. W., Birwe, A., & Maundu, J. N. (2015). Mentoring in pre-service teacher education: The case of a developing country, Kenya. *Proceedings of the international conference in education*.
- Prince, T., Snowden, E., & B, M. (2010). *Utilising peer coaching as a tool to improve student-teacher confidence and support the development of classroom practice*. Retrieved from Literacy information and computer educational journal (LICEJ), 1(1):49-51.: <http://research.gold.ac.uk/6572?>
- Rosemary, N., Richard, N., & Ngara, R. (2013). Teaching Practice Supervision and Assessment as a quality assurance tool in teacher training: Perceptions of prospective teachers at Masvingo Teacher Training Colleges. . *European Social Sciences Research journal*.
- Samkange, W. (2015). Examining the role of the mentor in teacher education in Zimbabwe. *Global journal of advanced research*, 2(2), 521-53.
- Schön, D. A. (1987). *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*. . Jossey-Bass.
- Wilson, S. M. (2013). rofessional development for science teachers. *Science*, , 340(6130), 310-313.
- Yin, R. K. (2014). *Case study research: Design and methods*. Los Angeles, C A: Sage.
- Zepeda, S. J. (2012). *Professional development: What works (2nd ed.)*. Eye on Education.

YOUNG ADULTS' PERCEPTION OF PEACEBUILDING SYSTEM FOR SUSTAINABLE DEVELOPMENT AND SECURITY

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Abstract

There have been concerted efforts towards ensuring peace from government at all levels, international bodies and other peacekeeping agencies all over the world, in Africa which include Nigeria. The perceived aggressors and agitators are the young adults who are now contrarily seen as change agents if involved in peacebuilding. This paper sought to examine young adult's perception of peacebuilding system for sustainable development. The study employed a descriptive survey research design, a research question was answered and three hypotheses tested using 1,830 participants from different parts of the country. A validated instrument tagged Young Adults' Perception Questionnaire (A_LE_SD_LQ; $r=0.93$) was used for data collection in the study. Data obtained were analysed using descriptive statistics of simple percentage, mean, standard deviation and inferential statistics of t-test and ANOVA. The findings revealed that there is significant difference in young adults' perception (mean=1.24). Besides, these findings were gender sensitive ($t_{(1,1726)}=-0.03$; $p=0.95>0.05$); age biased ($F_{(2,1727)}=0.45$; $p=0.61>0.05$) and educational attainment ($F_{(2,1727)}=0.05$; $p=0.95>0.05$) different. Young adults perception was discussed and it was recommended among others that full multi-sector programmes that target youth in specific areas of activity, such as employment creation and/or peacebuilding projects should be encouraged.

Keywords: Young Adults, Perception, Peacebuilding System, Sustainable Development and Security.

Introduction

There have been violence and unrest all over the world at various times leaving no particular area safe but despite the insecurity, live continues. Young adults are sometimes mistaken as trouble makers. They are considered on one hand as being vulnerable and on the other, feared as dangerous, violent, unconcerned and as threats to security. Their images are stereotyped as being angry, drugged and violent and as threat, particularly those who were involved in armed conflict as fighters. Ironically, about 1.3 billion 25-24 years old across the globe as reported by Alpaslan (2020) have witnessed violence and have vivid experience of it. The group of young adults who have witnessed violence, due to the experience, are in the best position to be considered for in peacebuilding programmes given their imagination of peaceful existence (The Youth Café, 2021).

Crisis is often caused by exuberance, impatience and anxiety of young adults, their quest and willingness to be seen as responsible and independent, the urgency of increasing the

speed of their social mobility, the perception of government as cog in the wheel of their progress and the determination to ruthlessly and jointly deal with such. Thus, joblessness, poverty, and social or political deprivation become the bone of contention. This kind of societal dynamics, segregation and discrimination vary across groups.

According to Abubarkar (2021) the young adults play adaptable roles in different situation they find themselves, they can be champions as well as the oppressed, rescuers and courageous in the midst of crisis, as well as villains in political crisis and military affairs in trouble areas. Hence, they have the capacity of playing immense role in peacebuilding as opined by Gabriel (2014) particularly their inclusion is imperative in order to fulfil Goal 16 of Sustainable Development which is to promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels. (United Nations, 2020). According to Ujomu (2002) including young adults in peacebuilding poses to promote peace in the society when their energies are diverted to the application of productive peace projects.

Peacebuilding efforts should go beyond signing agreements to stop violence but also involve equity and social justice for sustainable development UNESCO (2020). This paper sought to examine the extent to which social justice favour young adults and how it affects their inclusion in decision making in matters that concern them. The availability of adequate educational infrastructure and systems, employment opportunities and other structures through which youths can be active participants in making decisions concerning their wellbeing and that of the country at large. The inclusion of this group of people in peacebuilding can be meaningful only when there is fair play, equity, youth empowerment, right placement, adequate engagement major social restructuring predicated by continuous emphasis on these germane areas for instituting belongingness, civil and harmonious nation. (Nesterova & Ozcelik, 2021).

Statement of the Problem

Over the years, the young adults seem not to have been given enough spaces in many areas like admission, employment, appointments, political platforms and decision making. They are left out in some of these things and many of them become idle, angry and hungry. The issues got complicated by the nation's poor economic condition created by bad governance and unrest in Nigeria and across the globe. Some of the young adults engaged in illegitimate means of livelihood while others moved far away in search of greener pastures. How great will the nation be when these young old people are given full consideration in the scheme of things? This study therefore assessed young adults' perception of peace building system for sustainable development and security. There have been violence and unrest all over the world at various times leaving no particular area safe and young adults have been seen overtime as agents of conflict and destruction. Including young adults in peace building poses to promote peace in the society when their energies are diverted to the application of productive peace projects.

Availability of adequate peace building systems make youths to be active participants in making decisions concerning their wellbeing and that of the country at large. The inclusion of this group of people in peace building can be meaningful only when there is fair play, equity, youth empowerment, right placement and adequate engagement in major social

restructuring (Gabriel *op cit.*). However, young adults seem not to have been given meaningful inclusion in peace building decision making as reported by Crespo-Sancho (2018), Council of Europe (2021) and Nesterova Ozcelik (2021). This study therefore assessed young adults' perception of peace building system for sustainable development and security.

Objectives

The main objectives of the study are to:

- Assess young adults' perception of peace building system for sustainable development and security and
- Determine if there are any notable disparities in young adults' perception of peace building system for sustainable development and security according to gender, age and educational qualification.

Research Question: As a result of the research problem stated above, this study examined the following question:

1. What is young adults' perception of peace building system for sustainable development and security in Nigeria?

Hypotheses: The following null hypotheses were formulated and tested at 0.05 level of significance.

- H₀1:** There is no significant gender difference in the mean response of young adults' perception of peace building system for sustainable development and security in Nigeria.
- H₀2:** There is no significant age difference in the mean response of young adults' perception of peace building system for sustainable development and security in Nigeria.
- H₀3:** There is no significant educational level difference in the mean response of young adults' perception of peace building system for sustainable development and security in Nigeria.

Methodology

Non-experimental design of descriptive survey type was adopted for the study. This aims at investigating phenomena that are already in existence in the society, especially among the young adults. The targeted population for this study comprised all young adults from the age of thirty across Nigeria. The reason for the choice of this group of people is partly because they have major stake in peace building system, and partly because they are the change makers. Multistage sampling technique was used to select the participants of this study across the country. Simple random sampling was used to select three geo-political zones from the six geo-political zones in the country. Simple random sampling was also used to select five major cities in each zone. Total inclusive accidental sampling technique was used to select the young adults at their different working places across these cities resulting into 1,830 young adults that participated in the study.

An instrument tagged Young adults' Perception of Peacebuilding Questionnaire (YPPQ) which was adapted from the publication of USAID (2020) was used to elicit information from the participants on issues that have to do with their perception of peace building in Nigeria. This is a 15-item instrument designed to collect information from the participating young adults. The instrument was made up of two sections. Sections A dealt with the background information of the respondents like their gender, age, highest educational qualification; section B consisted items in relation to young adults' perception of peace building in Nigeria. The items were rated on a four-point likert scale of Very High Extent (VHE), High Extent (HE), Low Extent (LE), and Very Low Extent (VLE). An initial pool of twenty (20) items was developed in the instrument. The items were subjected to face and content validity, in which experts in adult education and educational evaluation validated the items. Fifteen (15) items survived the scrutiny. Comments about wordings and arrangement of items made were incorporated into the final edition of the instrument. The instrument was therefore pilot tested at a zone apart from the sampled zones. The reliability of the instrument was calculated using Cronbach Alpha Coefficient, and the instrument yielded a reliability index of 0.91. The researcher with some trained research assistants directly administered the questionnaire to the participants.

In order to make meaningful deductions, the data collected were statistically analyzed using descriptive statistics, which involve simple frequency count, simple percentage, mean and standard deviation to produce answer to the research question and inferential statistics of t-test and Analysis of Variance (ANOVA) to test the hypotheses at 0.05 level of significance.

Results and Analysis

The tables below show the analysis of data and results of the study.

Table 1: Socio-demographic Attributes of the Respondents

	Freq.	%	
Young Adults' Gender	Male	876	47.9
	Female	954	52.1
	Total	1830	100.0
Young Adults' Age	31-35 Years	680	37.2
	36-40 Years	916	50.1
	Below 50 Years	234	12.8
	Total	1830	100.0
Young Adults' Educational Level	No Formal Education	495	27.0
	Secondary Education	957	52.3
	Tertiary Education	378	20.7
	Total	1830	100.0

Table 1 shows the socio-demographic attributes of the respondents. 876 (47.90%) of the respondents were males while 954 (52.10%) were females. 680 (37.20%) were between the age range of 31 - 35 years, 916 (50.10%) were within the age range of 36 – 40 years, while the remaining 234 (12.80%) were below 50 years. 495 (27.00%) were without formal

education, 957 (52.30%) were with secondary education, while the remaining 378 (20.70%) were with tertiary education as at the time of data collection.

Answering the Research Question

What is young adults' perception of peace building system for sustainable development and security in Nigeria?

Table 2: Descriptive Statistics of young adults' perception of peace building system for sustainable development and security in Nigeria.

		Freq.	%	Mean	SD	Decision
The most common sources of conflict in Nigeria included land disputes, domestic violence and debt collection.	Very Low Extent	74	4.0	3.55	0.82	Very High Extent
	Low Extent	164	9.0			
	High Extent	274	15.0			
	Very High Extent	1318	72.0			
	Total	1830	100.0			
The predominant mechanisms to manage conflict in Nigeria are household elders, town chiefs and traditional councils.	Very Low Extent	74	4.0	3.07	0.85	High Extent
	Low Extent	384	21.0			
	High Extent	714	39.0			
	Very High Extent	658	36.0			
	Total	1830	100.0			
I first seek conflict resolution through elders and the family structure.	Very Low Extent	92	5.0	3.49	0.88	High Extent
	Low Extent	199	10.9			
	High Extent	255	13.9			
	Very High Extent	1284	70.2			
	Total	1830	100.0			
Land dispute cases are the most likely to escalate to the government officials.	Very Low Extent	55	3.0	3.37	0.86	High Extent
	Low Extent	291	15.9			
	High Extent	402	22.0			
	Very High Extent	1082	59.1			
	Total	1830	100.0			
Peace Committees were found to have maximum role in dispute resolution and conflict prevention in Nigeria.	Very Low Extent	73	4.0	3.60	0.79	Very High Extent
	Low Extent	128	7.0			
	High Extent	255	13.9			
	Very High Extent	1374	75.1			
	Total	1830	100.0			
I view indigenous alternative dispute resolution mechanisms more favorably than the formal judicial system.	Very Low Extent	55	3.0	3.48	0.87	High Extent
	Low Extent	291	15.9			
	High Extent	202	11.0			
	Very High Extent	1282	70.1			
	Total	1830	100.0			
I have never used the formal judicial system.	Very Low Extent	55	3.0	3.48	0.81	High Extent
	Low Extent	200	10.9			
	High Extent	383	20.9			
	Very High Extent	1192	65.1			
	Total	1830	100.0			
The formal judicial system is expensive.	Very Low Extent	37	2.0	3.63	0.67	Very High Extent
	Low Extent	91	5.0			
	High Extent	390	21.3			
	Very High Extent	1312	71.7			
	Total	1830	100.0			

	Total	1830	100.0			
The formal judicial system takes a long time to resolve cases.	Very Low Extent	91	5.0	3.68	0.80	Very High Extent
	Low Extent	110	6.0			
	High Extent	92	5.0			
	Very High Extent	1537	84.0			
	Total	1830	100.0			
The formal judicial system causes litigants to suffer other costs.	Very Low Extent	127	6.9	3.58	0.91	Very High Extent
	Low Extent	129	7.0			
	High Extent	146	8.0			
	Very High Extent	1410	77.0			
	5.00	18	1.0			
Total	1830	100.0				
The formal justice system is seen to promote discord as opposed to social harmony.	Very Low Extent	56	3.1	3.53	0.78	Very High Extent
	Low Extent	164	9.0			
	High Extent	362	19.8			
	Very High Extent	1248	68.2			
	Total	1830	100.0			
Indigenous alternative dispute resolution mechanisms promote unity.	Very Low Extent	55	3.0	3.69	0.70	Very High Extent
	Low Extent	92	5.0			
	High Extent	221	12.1			
	Very High Extent	1462	79.9			
	Total	1830	100.0			
Formal judicial system appears more susceptible to influence from privileged and powerful individuals.	Very Low Extent	55	3.0	3.66	0.71	Very High Extent
	Low Extent	91	5.0			
	High Extent	272	14.9			
	Very High Extent	1412	77.2			
	Total	1830	100.0			
Elders and youth work together frequently on town projects such as communal cleaning or construction.	Very Low Extent	36	2.0	3.62	0.76	Very High Extent
	Low Extent	204	11.1			
	High Extent	185	10.1			
	Very High Extent	1405	76.8			
	Total	1830	100.0			
I feel comfortable bringing conflicts to local leaders.	Very Low Extent	55	3.0	3.68	0.73	Very High Extent
	Low Extent	128	7.0			
	High Extent	166	9.1			
	Very High Extent	1481	80.9			
	Total	1830	100.0			

Results in table 2 show the mean and standard deviation scores of the rating scales items on young adults' perception of peace building system for sustainable development and security in Nigeria. All the items have mean rating scale above 2.50. This shows that the extent at which young adults' perceived peace building system for sustainable development and security in Nigeria was on the high side.

Testing the Hypotheses

H₀₁: There is no significant gender difference in the mean response of young adults' perception of peace building system for sustainable development and security in Nigeria.

Table 3: Descriptive Statistics of young adults' perception of peace building system for sustainable development and security in Nigeria based on gender.

	Young Adults' Gender	N	Mean	Std. Deviation	Std. Error Mean
Young Adults' Perception	Male	876	53.0514	3.50097	.11829
	Female	954	53.1698	2.98413	.09661

Table 5: t-test analysis of young adults' perception of peace building system for sustainable development and security in Nigeria based on gender.

		F	Sig.	t	df	Mean Diff.	Std. Err.Diff.
Young Adults' Perception	Equal variances assumed	29.817	.000	-.781	1828	-.11844	.15170
	Equal variances not assumed			-.776	1726.4	-.11844	.15273

Results in tables 3 and 4 show that there was statistically significant difference ($t_{(1,1828)} = -0.78$) in young adults' perception of peace building system for sustainable development and security in Nigeria based on gender ($p = 0.00 < 0.05$). The mean and standard deviation values also show statistically significant difference in young adults' perception of peace building system for sustainable development and security in Nigeria based on gender. Therefore, we do not accept the null hypothesis that says that there is no significant gender difference in the mean response of young adults' perception of peace building system for sustainable development and security in Nigeria.

H₀2: There is no significant age difference in the mean response of young adults' perception of peace building system for sustainable development and security in Nigeria.

Table 5: Descriptive Statistics of young adults' perception of peace building system for sustainable development and security in Nigeria based on Age.

	N	Mean	Std. Deviation	Std. Error
31-35 Years	680	53.9721	3.31429	.12710
36-40 Years	916	52.5044	3.37315	.11145
Below 50 Years	234	53.0000	1.47074	.09615
Total	1830	53.1131	3.24147	.07577

Table 6: ANOVA of young adults' perception of peace building system for sustainable development and security in Nigeria based on Age.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	844.134	2	422.067	41.969	.000
Within Groups	18373.452	1827	10.057		
Total	19217.585	1829			

Results in tables 5 and 6 show that there was statistically significant difference ($F_{(2,1829)} = 41.97$) in young adults' perception of peace building system for sustainable development and security in Nigeria based on Age ($p = 0.00 < 0.05$). The mean and standard deviation values also show statistically significant difference in young adults' perception of peace building system for sustainable development and security in Nigeria based on age.

Therefore, we do not accept the null hypothesis that says that there is no significant age difference in the mean response of young adults' perception of peace building system for sustainable development and security in Nigeria.

H₀₃: There is no significant educational level difference in the mean response of young adults' perception of peace building system for sustainable development and security in Nigeria.

Table 7: Descriptive Statistics of young adults' perception of peace building system for sustainable development and security in Nigeria based on educational level.

	N	Mean	Std. Deviation	Std. Error
No Formal Education	495	54.1192	3.46818	.15588
Secondary School	957	52.8067	3.28577	.10621
Tertiary School	378	52.5714	2.44438	.12573
Total	1830	53.1131	3.24147	.07577

Table 8: ANOVA of young adults' perception of peace building system for sustainable development and security in Nigeria based on educational level.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	701.809	2	350.904	34.625	.000
Within Groups	18515.776	1827	10.135		
Total	19217.585	1829			

Results in tables 7 and 8 show that there was statistically significant difference ($F_{(2,1829)} = 34.63$) in young adults' perception of peace building system for sustainable development and security in Nigeria based on educational level ($p = 0.00 < 0.05$). The mean and standard deviation values also show statistically significant difference in young adults' perception of peace building system for sustainable development and security in Nigeria based on educational level. Therefore, we do not accept the null hypothesis that says that there is no significant educational level difference in the mean response of young adults' perception of peace building system for sustainable development and security in Nigeria.

Discussion of Findings

Findings from table two showed that the extent at which young adults' perceived peace building system for sustainable development and security in Nigeria was on the high side. Besides, there were significant gender, age and educational level differences in the mean response of young adults' perception of peace building system for sustainable development and security in Nigeria.

The findings supports the view of Abubakar (2021) who discovered that young adults are critical stakeholders in peacebuilding and should be involved at all stages of peace process for the sake of sustainability. It is also in line with the view of Berent & McEvoy-Levy (2014) who examined the age specific as well as gender, and other contextually specific roles of youth as they relate to everyday peacebuilding. However, this findings is at variance with those of Talentino (2007) who observed that the perception of peacebuilding nowadays is neither here nor there, people in selected community tend to be skeptical of transformation. The author explained further that given the segregation and abuse suffered

in the past, there is likely to be distrust for change particularly when it does not meet the need of whatever group. Enforcement or imposition of change will likely result in resistance and counter productivity, thereby causing unrest in such places.

Conclusion

Based on the findings of this study, it was concluded that young adults' perception of peacebuilding is significantly based on age, gender and education. This means that the inclusion in peacebuilding and care of this group of citizens in the society would consequently enable the development of sustainable peace and security. Adequate investment in young people's agency in peace processes has good potential of yielding positive result, the peace dividend will increase significantly.

Recommendations

Based on the findings of this study, the following recommendations were made:

Full multi-sector programmes that target youth in specific areas of activity, such as employment creation and/or peacebuilding projects should be encouraged.

Policies and institutions that enable investment in youth to succeed at various levels should be encouraged.

Peacebuilding programmes should involve the demand of the target group.

References

- Abubakar, A. (2021). Youths as an Agent for Peacebuilding: A case study of Maiduguri, Borno state, Nigeria Vol. 2 No. 2 (2021): OJSSH 2021 Second Issue
<https://www.openjournalsnigeria.org.ng/journals/index.php/ojssh/article/view/267>
- Alpaslan, O. (April, 2020). The role of youth in peacebuilding: Challenges and opportunities Oxford Research Group
<https://gdc.unicef.org/resource/role-youth-peacebuilding-challenges-and-opportunities>
- Berent, H. & McEvoy-Levy, S. (2014). Theorising youth and everyday peace (building)
<https://www.tandfonline.com/doi/full/10.1080/21647259.2015.1052627>
- Crespo-Sancho (June, 2018). Youths as partners in the prevention of violent conflict World Bank Blogs
<https://blogs.worldbank.org/dev4peace/youth-partners-prevention-violent-conflict>
- Council of Europe (April, 2021). Strengthening the role of young people in the prevention and resolution of conflicts
<https://assembly.coe.int/LifeRay/CULT/Pdf/TextesProvisoires/2021/20210412-YoungRoleStrengthening-EN.pdf>
- Gabriel, P. M. O. (2014). Social justice (sj) and sustainable national development in Nigeria: a theoretical Discourse International Journal Of Advanced Research In Statistics, Management And Finance VOL. 2 NO. 1, October 2014 ISSN PRINT: 2315-8409, ONLINE: 2354-1644

- Nesterova, Y. & Ozcelik, A. (2021). Youth Has a Key Role in Peace Processes
<https://impakter.com/youth-role-peace-processes>
- Talentino, A. K. (2007). Perception of peacebuilding: The dynamics of imposer and imposed upon
<https://www.researchgate.net/publication/227958634> Perceptions of Peacebuilding The Dynamic of Imposer and Imposed Upon
- The youth café (2021). The role of youth peacebuilding and confliction resolution
<https://www.theyouthcafe.com/perspectives/the-role-of-youth-in-peacebuilding-and-conflict-resolution>
- Ujomu, P. O. (2002). Social conflicts, resource distribution and social justice in Nigeria
Journal of Asian and African Studies No. 63
- UNESCO (2020). Youth as peacebuilders: Enhancing youth resilience and building peace
<https://reliefweb.int/report/world/youth-peacebuilders-enhancing-youth-resilience-and-building-peace>

THE SOUTH AFRICAN EARLY CHILDHOOD DEVELOPMENT CENTERS' OVERLOOKING OF SOCIOCULTURAL VALUES: TRAJECTORY OF DECULTURALIZATION

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Abstract

Family sociocultural values are core to childrearing and rearing, crucial and a necessity for children's cognitive development, growth, and learning; thus, this qualitative study sought views of parents on the sociocultural development of their 0-4-year-old children attending ECD centres/preschools/ECD Centres, in four ECD centres in the East London District, of the Eastern Cape Province in South Africa (SA). The study unpacked the question "do parents perceive any alignment between home and ECD centres where their children or grandchildren spend most hours weekly". Bronfenbrenner's (1979) ecological systems theory was used as a theoretical framework to guide this study. The study was located within the Interpretivist paradigm and used a case study design to explore. Semi-structured interviews were used to collect data, which was analyzed using a thematic approach. Purposive sampling was used to select fourteen parent participants comprising nine females and one male aged between 25 and 50 and four grandmothers aged between 55 and 80 years. The participants in this study overwhelmingly echoed the theorists' views on the importance of family sociocultural values. The findings also revealed that family sociocultural values of the majority of SA children (Africans particularly) are not perceived as the foundation for continued learning; instead, they get ignored and rejected by the SA ECD sector. The result is knowledge acquisition and language (L1&L2) proficiency fragmentations. Achieving continuity of family sociocultural values beyond home in diverse societies like SA is proving to be a challenge demanding greater consciousness, commitment and consistency in dealing with domination of the education system by English and school cultures, even in preschools/ECD Centres.

Keywords: Context, Culture, Family, Sociocultural values, deculturalization

Introduction and Background

Family dynamics have changed in the Eastern Cape Province drastically due to a number of factors. Firstly, the high levels of poverty in which the province is listed as the poorest in the country has forced most people to migrate to the cities looking for job opportunities. In this migration, children are often left with grandparents to raise. Secondly, the emerging and growing number of Child Headed Households (CHH), means that these households have no adult figure and authority and children are left on their own. These factors, have inadvertently forced the South African government to intervene and mitigate the ravaging effect of poverty, particularly the vulnerable children by establishing the ECD Centres.

The NDP (2011) highlighted that only 27% of African young children live with their biological parents countrywide. The Eastern Cape (EC) Provincial Review (2016) also confirmed parents moving away from their homes for job opportunities in cities and other

provinces, resulting in a decreased EC rural population by 3% from 1996 to 2011, while the urban population has a growth of 20%. The EC Provincial Review also confirmed that the migration of people away from home resulted in instability in family structures, with negative effects on the sociocultural development of children (Smith, 2013). Some parents leave their children with their grandparents, relatives and/or the people they trust. Due to distortion of families, the National Development Plan (NDP, 2011) suggested '*kinship network*, for the provision of family care for all children in the ECD centres as a standing ground for young children in places of safety, some of whom are there from day one until age eighteen with no sociocultural development guide. Other factors such as violence against women and children, abuse, teenage motherhood, increasing single parenthood and divorce, working and single mothers; necessitated the formalization of EDD Centres to protect the interest of the vulnerable children (DoSD & UNICEF, 2015). The South African Parliamentary Monitoring Group (PMG) (2015) reported that, child and youth-headed households are prevalent and susceptible to poverty and vulnerability having to cope without parental care and guidance. It is common knowledge that when children take care of their siblings, their safety and security of the child caregiver and that of the child cared for are threatened. Statistics SA (2012) General Household Survey highlighted that 50 000-90 000 households in SA are headed by children and youth. In many circumstances, these families are faced with serious abuse: sexually, emotionally, and physically and experience other forms of violence such as prostitution, trafficking and death due to the fact that they are not adults to qualify for employment and have no skills to cope with child upbringing and poverty. In most cases, child caregivers and children they care for, by virtue of their immaturity, end up losing their identities and sense of belonging and consequently fail to transfer family sociocultural values to their siblings, without guidance from adult caregivers. The South African (SA) government's key interventions to these multiple challenges facing SA parents, families and vulnerable children to counteract poverty through open access to Early Childhood Development (ECD) programmes and services. This strategy was perceived to be of triple benefits to young children of SA who would be fed while ensuring that they get quality Early Childhood Education (ECE) and health services (Education White Paper 5, 2001). The SA government, therefore, took the responsibility of indirectly caring and rearing for children through funding ECD programmes and services. Three government departments viz; Education (DoE), Health (DoH) and Social Development (DoSD) were identified as key partners to driving the process (Education White Paper 5, 2001). SA, thus, legitimized open access of ECD services and programs to children of all sociocultural backgrounds, from birth to six (6) years of age, while taking into consideration 0-9-year-old children's development (Education White Paper 5, 2001; DoE, 2001).

There are two ECD programmes in SA, namely; centre-based and non-centre-based programmes. Centre-based programmes are divided into two, namely, ECD centre-based program offered in ECD centres and youth centre-based programmes offered in Youth centres (Ilifa Labantwana, 2017). There are seven (7) non-centre based ECD programmes offered at different places and times such as homes of parents and other caregivers, local clinics, schools, municipality, community halls, traditional authority places and churches; some are offered on free open spaces such as playgroups and mobiles. The seven non-centre-based programmes include: Home-based, Community based, Mobile ECD, Playgroups, Toy Library, Outreach and Child Minding ECD programs (DoSD, UNICEF,

2006; Ilifa Labantwana, 2017). All SA ECD programmes are guided by the same policy guidelines and norms and standards as prescribed by the three different government departments and one of them is the requirement to be registered with the DoSD (DoSD, 2008; DoSD, 2013/2018).

Literature Review

From collected data the following themes emerged; the home as a fun place for interpersonal relationships, home as a source of moral values, freedom, spontaneity and creativity. Home as a place where one is appreciated, taught kindness and humanity.

Home: Socialization Institution of Young Children

The first school for any child is the home and the first teachers are parents, particularly mothers. This statement is echoed by Papatheodon and Moyles (2012) and Argenton (2015), that parents engage the child during feeding, bathing and uses family language mostly spoken in the home of the growing child to convey messages to the child from birth. Parents provide their children with the most powerful learning arrangements (Alivermin & Cavicchiole, 2019; Isenberg & Jalongo, 2003). Infants, toddlers, and young children need a stable and consistent environment to grow and develop as they are totally dependent on their parents for care and sustenance (Huang, 2018).

The transmission of family sociocultural values is facilitated through communication in a language mostly spoken by a particular sociocultural group to explain all that must be learnt by the growing child (Eitel, 2017; Du Plessis & Marais, 2008; Bronfenbrenner, 1979). Denzin and Lincoln (2011) agreed that language is important because it has words that carry meaning to explain what must be understood. Language is an important element of one's culture that brings to the fore the meaning of words - hidden expressions and deeply rooted phrases some of which are known and understood by that cultural group. Furthermore, language expressions and phrases in all cultures are used to give meaning, explain, unpack and clarify things through the use of words deeply rooted in language (Thompson, 2019; Mercer, Warwick & Ahmed, 2014). Garcia, Pence, and Evans (2008) and Barnes. et al (2017) affirmed that both the child and the parents' context are embedded within the family social and cultural contexts. Barnes. et al (2017), contended that people of the world raise their children in accordance with their cultures. There is no universal culture, socio-cultural practices; beliefs, traditions and values are intrinsically entrenched in all cultures.

The transmission of family sociocultural values to the growing child occurs as a result of daily activities, without following strict action plans (UNICEF, 2012). It is an important process that must take place in an environment conducive for a newborn child to feel emotionally and physically good to learn in the process. Mligo (2020) and Smith (2010) also highlighted that young children learn different subjects during socialization and some aspects of their sociocultural values include moral values, respect, appreciation, kindness and affectionately living with others. Furthermore, the sociocultural elements are necessary for children to learn and apply right throughout their lives, in further learning and social activities. Bronfenbrenner (1979) explained that it is parents and their families' personal

responsibility to prepare and manage a warm conducive climate and time to care for the newborn to build interpersonal relationships. The parents' social and cultural contexts and how children are viewed as entities of their parents' context get influenced by it (September, Rich, & Roman, 2016; Dube, 2015; Kendra, 2013; Schweinhart & Weikart, 2010; Ball, 2006). According to Bertaux and Thompson (1993:1)

Parents' social and cultural (sociocultural) context starts with historical memories consolidated into family values, beliefs, language, names, local social standing... social values, aspirations, domestic skills, world views, daily life experiences, the taken for granted way of behaving, attitudes to the body, models of parenting, marriage...

Theoretical Framework

The Contextual / Sociocultural approach, within which Bronfenbrenner's (1979) Ecological Systems theory resides, was chosen as the Theoretical Framework for this study. Bronfenbrenner's (1979) ecology of human development explains that parents and their context do not exist in isolation; they are connected to the environments around them and influenced by those environments. Bronfenbrenner's (1979) continues that, no matter how deep the connections between the home and the surrounding environments, the home remains the first place where everything about the young growing child starts, he contends:

It is in the immediate environment: the microsystem where the young child is received at birth. It is at home where the growing child hear and learn the first words, act from intuition, in the time that the family spend with the child ... Parents are responsible for creating a warm, loving and conducive environment to accommodate the newborn child, to guide and monitor the child's growth, learning and development (Bronfenbrenner, 1979:21-22)

Bronfenbrenner (1979), argued that it is parents and their families' core responsibility to transfer and transmit family sociocultural values to the newborn until adulthood. Everything newborn babies know starts from the centre - the home environment and spirals out in a web-like pattern to the other environments. This implies that the home, it is where the parents of the infant interact to create a bond, building interpersonal relations, teaching the child family sociocultural values, which later motivate the child to continue learning to adulthood and beyond (Donald, et.al. 2014; Bronfenbrenner,1979). Huang (2018); Flear, Hedegaard and Tudge (2009) echoed these sentiments by declaring that globally, human beings survive and thrive in varied ecological and cultural circumstances in organizing the context for the children to develop and learn. Scholars concur that the wisdom that gets transmitted between generations is loaded with psychological meanings: with projections and identifications of love, anger, symbols and desires (Bertaux & Thompson, 1993; Pence, 2013).

These sociocultural theories go back to old cultural studies, theories, discourses, and arguments about different socio-cultural groups ethics nurtured for generations. Rogoff (1990:27) for example, argued that "*all human activities, indigenous and formal (schooling) are socially and culturally constructed*". In this view, Rogoff (1990) is supported by Ball (2006); Garcia, Pence and Evans (2008) and many other sociocultural theorists. Calvert (1992) and Dreikurs (1964) eloquently explained how nations and tribes

of the world nurture and construct their everyday activities and diligently transfer them to generations after them. These scholars contended that:

Every culture and civilization develop a definitive pattern for raising children. Each tribe had its own tradition on how to raise its children in a way appropriate to (family) their culture(s).....Every culture had its own procedures... to meet life problems. Every culture defines what it means to be a child, how children should act, what is expected of them, and what is considered beyond their capabilities. All behaviours are established by traditions (Calvert 1992: 186)

These theorists' arguments are anchored on the view that there are no universal normative methods to childrearing and rearing; instead, all nations and tribes of the world use the social and cultural practices developed through people's daily activities. Such practices, over a period, get accepted as norms and conventional agreements that guide them on how to live their lives, based on what is accepted in their tribe or nation, how and what to teach their children. In summary, the child's sociocultural background has a bearing on his/her development. This assertion is in line with Bronfenbrenner Ecological Systems (1979), that the child's development is dependent on other external factors that have an influence on him/her; starting from the family (microsystem) to the wider community (macrosystem) taking over time (chronosystem).

Research Methodology

Paradigm and Research Approach

The research paradigm used in this study was Interpretivism. Interpretive theorists, according to Creswell (2015), believes that individuals develop meanings of their experiences and express them according to their understanding in relation to things they know. It is appropriate for putting people at the centre and allowing them to express themselves according to what they know/live. Through interactions and discussions, the parents of 0-4-year-old children were able to construct the meaning of what they know and understanding of what sociocultural development of young children, whether there are areas of alignment between home and ECD centres of their choice. Qualitative research approach was used in this study in investigating issues in natural settings (Paton, 2015 & Yin, 2011). In this study, investigations were focusing on parents' views of their children's sociocultural development in ECD centres.

Research Design and Sampling Technique

The research design used in this study was a Case Study. Fourteen parents (nine mothers, one father and four grandmothers out of twenty targeted) were purposefully selected for this study. According to Paton (2015) and Maree (2007), purposeful selection of participants is important, as participants are holding rich detailed information on the subject of inquiry. In this study, immediate family members living with these young children were perceived as the most appropriate sample because they could observe their children's behavioral changes on daily basis.

Data Instrument and Data Analysis

Semi-structured open-ended questions were prepared to assist with the interactions with the participants. The researcher tape-recorded verbal responses while personal short notes

were taken where necessary (Creswell, 2015; Mac Naughton et al., 2001; Nolan et al., 2013). Data analysis was done using Thematic approach which focused on identifying frequently used words and phrases to create themes that addressed the research questions. Multiple participants, according to Creswell (2015) and Maguire (2017), bring about undeniable commonalities and differences to advantage the analysis process. Ten parents and four grandmothers participated in this study.

Findings

This paper sought to ask if parents perceive any alignment between home and ECD centres where their children or grandchildren spend most hours weekly. The data was collected through semi structured interviews and was thematically analysed and themes below emerged.

Home: A Fun Place for Interpersonal Relationships and Moral Values

The interviewed parent's views on interpersonal relationships between them, at 0-4 years of age, living with their parents/families in their homes reflected intimate interactions which involved a lot of fun. They remembered without struggle the best times they experienced in their homes, laughing, playing with siblings, feeling loved, cared for and appreciated for doing very little, most of the time. They recalled their families: parents, siblings, grandparents and relatives always around them, loving and caring for them; and emphatically put it that having their family members around gave them a sense of security:

I just liked being home with my parents, I felt happy and safe. I loved and trusted my parents dearly and would cry whenever they left me until I was six years old (P3).

Home is where you will laugh and get praised in your clan name for doing the smallest things. Home was the best place to be. My uncle and my grandfather liked carrying me up on their shoulders. I felt loved, high, and special (P4).

Individually, they remembered their parents communicating with them in the most affectionate and respectful ways, showing them love and teaching them to love. Their families interacted and engaged them as young children. Their narratives of interpersonal relationship building processes involved a lot of fun, which they perceived as borne from the presence of their parents and family members in their homes. The picture they portrayed of their homes is that of overwhelming fun, love, excitement and joyful moments. This joyous wholesome life they experienced, shared with their families includes: their parents, siblings, grandparents, aunts, uncles, cousins, relatives, and close family friends from early age who gave these testimonies individually.

The participants in this study painted their world as anchored in their parents' context, which was made up of love for them to: "*just like being at home with parents*" (P5) having a lot of trust in their parents, feeling loved and safe and even referred to their parents "*as best friends*" (P3). They gave a good, healthy and exciting picture of their homes, affection, respect and harmony. These narratives are supported in literature by words of Farquhar

(2003:371) who contended, “*affectionate parents resemble the central figure in the hearts of the children’s universe*”, meaning all those infant children need is their parents and unconditional love, responding to their immediate needs.

Secondly, the interviewed parents shared that their parents, as their primary caregivers together with their families, affirmed their small efforts, encouraging them by praising them just for attempting to doing things no matter how small (P3). They said their parents would say the most wonderful words in appreciation of their efforts, “*praising them in their clan names (ancestral names)*” (P4) just for trying to talk, calling people’s names, wrongly most of the time, learning to walk etc. They passionately explained that one-on-one attentive interactions instilled confidence in them and built trust between the child and the person always around.

Being appreciated is confidence building

The confidence and time spent with each family member created a bond, a connection, with their mothers particularly, as they were the ones mostly available. According to Ilifa (2017) and McClelland, Kessenich and Morrison (2003), infant-caregiver bond is based on consistent quality parenting characterized by warmth and responsiveness. Such attachment has profound implications for the child’s feelings of security and capacity to form trusting relationships. The interviewed parents, through bonding and trusting their parents, felt a sense of belonging with their parents, appreciation and encouragement, they said:

I got used to being told that I was a beautiful girl, the princess of my clan. That built my confidence and motivated me to keep on doing good things (P2).

My parents and grandparents loved and appreciated me; I trusted them. We bonded so well, it was as if we were peers. It felt good and the bond is still there (P6)

I was encouraged by my parents from an early age, they told me that I was brilliant and I studied to become something in life, hence I want the best for my son. I trusted my grandmother; her praises motivated me to being that number one, the best of the best in school. It is remembering such praises all the time that make me think that I’m still that number one. It really felt good, very good in a deep way very difficult to explain (P1).

Sociocultural theorists such as Steel, et al., (2018) and Neufeld and Maté (2006), confirmed that the warm and caring, pressure and threat-free family environment with parents, relatives, and siblings made the children identify with people around them. assisted young child to grow emotionally, psychologically and socially. Croll (2014:412), in confirming warm environment in the presence of the child’s family said, “*Families matter a great deal to young people as a source of identity and security and children’s confidence is built through motivational interactions*”. Berk (2012) added that parents’ contribution to their children’s development is irreplaceable, motivational and long-standing from infancy to adulthood. These explanations reiterate that children who are cared for, given love as well as material needs such as healthy homes and food, are likely to trust themselves and people around them.

Moral value lessons

Most parent-participants reflected that young children were taught to learn and exercise moral values from an early age, during breast-feeding times. They spoke in-depth about respect, good behaviour, positive attitudes, good mannerisms, caring and loving self and others, including neighbours and local people. They said that their parents motivated them to respect all people, even the ones they did not know, and that was the tradition. Respect seemed to have been the cornerstone of sociocultural development, as explained by the participants in this study, saying that it was highly valued by people of all ages. From an early age, children were motivated to master all important values and actions qualifying for acceptable behaviour. Children and adults were allowed to voice and show dissatisfaction, but actions had to be clear, specific and respectful. Almost all of them said that it was emphasized that they never call people older than them by their first names, not even their older siblings.

Whenever you spoke with people older than you, it was expected that you use a suffix or a name, for example: Ewe (yes) Mama, Hayi (no) Tata (dad), Enkosi (thank you) Tata, Makhulu (Granny) etc. (P15).

All people especially children were expected to greet all people on encounter; you greet people! That is our culture (P13).

I was taught to respect the elderly people and people of all ages, not only my biological parents (P1).

We as children were taught to respect things around us and listen attentively to what was being said. We were taught to respect ourselves as children, respect and appreciate your parents, respect your family name (P3)

Many theorists and scholars supported the interviewed parents that in some cultures, especially in African indigenous knowledge systems, it is cultural that when children speak with people older than them, as a sign of respect, they were expected to put suffixes behind words (Moodly, Sotuku, Schmidt & Phatudi, 2019). In addition, as part of respecting self and others, most participants shared lessons learnt as growing children on good mannerisms: acceptable ways of doing things, the manner of speaking with others, even when laughing, to behave well, to conduct themselves with respect even at play, to support, encourage and cheer each other up. According to Shizha (2014) and Anning, Cullen and Fler (2003), indigenous cultures, learning is built on collaboration in ongoing activities within a family environment.

Freedom, spontaneity, and creativity

Fourthly, interviewed parents recalled times they spent with their siblings and local community children. They said that although older children would help them organize and create things to play with, they were at liberty as young children to create their own games. Their audience was made up of their parents and older siblings to affirm them (clapping and ululating) and making sure that they do not hurt each other. Again, their families from infancy added fun in the games and said that some adults would volunteer to play with

them, teaching them old games but allowing them to use their creativity and alter the game to accommodate younger children.

We used to play together boys and girls. There were no toys and no separate games. Together we played all kinds of games and used our creativity as children to make our own balls (P5)

We, as siblings (this also referred to neighbours' children) would play together happily, sing and dance. Our parents, older siblings and grandparents were always around even if they were watching from a distant. We experienced the warmth, love, the presence of our parents and our grandparents (P3).

There are many theorists who have written a lot about freedom and spontaneity in children's play embedded in their contexts, allowing children's language and creativity to grow to add value to the game to suit the children's game at that time, as long as excitement and fun were maintained (Mligo, 2020; Moyles, 2001; Anning, Cullen & Fler, 2003; Rogoff, 1990).

Kindness and humanity

The elderly-participants, in the study explained how respect and kindness can build interpersonal relationships among people. Kindness, as they explained it, seemed to have been at the centre of their parents' ways of living, grounded in the Africanist philosophical way of life: Ubuntu (Nigerian Igbo origins, 2018) affirming Africanist human beliefs and actions that: "*your child is my child; you are who you are because of others*". They shared that their biological parents were living together with other family members: their grandparents, aunts, in the same household or in neatly close huts, the kraals (*ikhaya* in isiXhosa, *igceke* in isiZulu). Those were different rondavels for different people's public and private use belonging in the same home/setting to accommodate even members of the clan who might come to visit or stay.

Individually, they explained that kindness was rooted in the ability to learn to share almost everything, unconditionally. In those days, it was a norm to find children sharing a meal, sweets, their homes, self-made toys and almost everything they could, not only with one's siblings but with local children as well. Kindness was extended beyond home and sociocultural groups to local communities and neighbours. There was a broad and fulfilling understanding of people around and beyond home as people as well (*ngabantu nabo* - P1) with high moral values of the same quality as the family. Kindness and respect were perceived as key moral values holding families and neighbours and being considerate of other people. They said that their parents perceived these values as what makes human beings human, they said:

We were taught to learn to share everything: food, sweets, sleeping places/matrasses, clothes and sometimes eating from the same dish (P1).

Our parents those days, taught us that it was not acceptable to eat in the presence of others without inviting them, but to share your food, no matter how little (P4).

The participants expressed the opinions that the process of learning family traditions was mainly facilitated and guided by their grandparents, mature relatives and some elderly community people from the same clan. Elderly people were the ones conducting such ceremonies, communicating and informing young parents and youth how ceremonies, rituals, rites of passages, and at what age in the child's life were performed and why. They explained and gave names to some of these ceremonies, for example, *imbeleko* (a goat/sheep slaughtered for all children of that particular clan); and *intonjane* (conducted for girls only to bless their fertility particularly). The young parent's induction included explanation of the process to learn while traditional practices were performed, they said:

Cultural values in our home is a way of life. We are traditional people. We live the life of being us. Yes! We are Africans by birth. We are Christians but we live our lives as black African people, that clan. I am my family child and I am proud. I grew up in a gemeenskap of three cultures (amaXhosa, Afrikaans and few English but family speaks the latter two); when playing all three languages were spoken simultaneously. The community children were my siblings, we grew up together (P5).

Based on own experiences, the participants lamented the content of knowledge taught at the ECD Centres and expressed that they are unable to tell what their own children learn in preschools/ECD Centres, or whether it is in alignment with or different from what they learn at home. Individually, they said:

I do not know exactly what the children are doing nor learning there, but I think they play, eat and sleep. The older 3 and 4 years, maybe, as they begin to understand things, listen and start talking, imitating others and teachers, but learning? (P3).

They were also probed to recall even the smallest similarities they could think of things that the children might have shared with them. All the interviewed parents found it challenging to identify similarities in sociocultural development of children in ECD centres and home. On the other hand, they said speaking from their experience of schools, a group of children learn through instructions from one teacher, with very little engagement between the teacher and children. These children must learn at a young age to remember what the teacher said by repeating after the teacher. Remembering is tested by saying what the teacher had said.

In preschool, children are taught to understand routines to doing things irrespective of their individual needs e.g. going to wee, eating, sleeping whether the child is ready or not (P6).

One teacher handles a lot of them and cannot afford to give each child his/her own time unless there is a must, hence all activities in the ECD centres are time bound.

The teacher is the one who tells the children what to do, the way to do what needs to be done so that all the child gets the chance ((P2)

Parents participants also pointed out such differences in knowledge transfer practices between home as preschools/ECD Centres do not teach or promote sociocultural development of children, making them understand and appreciate other children from other cultures - not even the centres that use isiXhosa as a medium of instruction who should understand the importance and effects of calling a child by his/her clan name, they said:

Family values, culture, traditions, such things are not taught nor encouraged in what children learn in preschools, no! Such things are never spoken about even when children are asked to do that family tree thing (P7).

Love was found to be lacking in preschools/ECD Centres, thus making the transfer of sociocultural values difficult to attain.

In ECD centres there is no love of children, children are confident at home but are made to be quiet in school. The school teachers do not use home language, do not talk the way parents talk with children. Children get praised in preschools/ECD Centres for being quiet TP2) no praising in their clan names not even in the rural crèches that speak isiXhosa, why? (P3).

These sentiments are echoed by Ball (2006:3), who argued, “pre/schools are not interested in children learning their cultures, so they do not ask about it”. They do not communicate with children or ask them if they know their indigenous languages, different social settings or ceremonies. Nsamenang (2008b) adds that Early Childhood Care and Education (ECCE) services instill shame in the majority of children of the world for not being Western and make it seem as if there is something sinister about not being White European or Western. Many other sociocultural theorists supported the view of preschools/ECD Centres having children whose cultures or language despised. Multiracial pre/schools, particularly, would rather focus on children’s inabilities to understanding school culture (mostly English in the SA context) coercing children to master learning to speak in English at a very young age (Serpell & Nsamenang, 2012; Du Plessis & Louw, 2008). One Participant reported that in ECD centres, it is a standard practice that children get organized around nice commercially available games such as blocks, swings and riding scooters bicycles. The focus is not creativity but compliance to teacher’s instruction and mastery of competitiveness.

I watch and listen when they (children) play. In ECD centres, the teachers will tell the children which game to play with which toys, how, and when to clap for the winner(s) just all the details (P4).

Some participants argued that there is no alignment between home and preschools/ECD Centres, particularly with regards to teaching sharing, and respect and these are not the same way as they are taught at home. Respect as explained by parents is critical and key to children’s learning and is the determinant of good behaviour if mastered correctly, they said:

At home as young children, we were taught to respect ourselves as children, girls and boys, treat others nicely and behave well. Communicating with respect especially with people older than you (P4).

Parent participants felt that the ECD centres focus and teach learners to listen well and remember everything that the teacher had said and how to behave and communicate in the ECD centre or school. As a result, children respect their teachers more than their parents.

These children as young as they do not forget what their teachers told or asked them to do or bring from home. They tell you on entering the house/car. These children respect their teachers more than their parents (Most parents). I think they are scared of them. I was scared of most of my teachers when I was young (P9)

Sociocultural theorists agree with parents on children respecting and listening more attentively to their teachers than their parents (Anning, Cullen & Fleer, 2003; Edinyang & Cletus, 2014). That kind of respect is rooted from fear of their ECD teachers than respecting them affectionately and contend that it is because in pre-school culture there is pressure put on young children (Baskey, 2020; Bhise & Sowanat, 2013), and emphasis on being right or wrong. Children get reprimanded and teased for being wrong or not following instructions ‘correctly’ (Anning, Cullen & Fleer, 2003).

Furthermore, some interviewed parents claimed to have noticed some uncomfortable behavioural pattern changes in their children that they linked to different environmental practices. They explained how their 3- and 4-year-olds unconsciously played out their suppressed feelings (by parents and teachers) when leaving home and when in preschools/ECD Centres. They said that their children, mostly on weekends or during school holidays, would act and respond differently, do silly things just to show that they were home and free to be themselves, they said:

Yes! There is a big difference between home and ECD centre, it is reflected in my child’s behaviour on weekends. The child is aware that there is no mother’s love and kindness there (akho thando nobubele bukamama), so she must behave and respect the teachers (P2.)

In ECD centres, there is no love of children, children are confident at home but are made to be quiet in school. Children get praised for keeping quiet in preschools/ECD Centres (P3)

That children can fake happiness, pretend to be fine with the situation just to please both parents and teachers, was shocking. It is something that needs serious consideration. According to Eitel (2017) and Berk (2012), such situations leave the children with emotional traumas likely to come back later in the lives of the affected children; hence, it is crucial to listen to the child’s signals and respond accordingly.

Conclusion

The participants of this study lamented that the ECD Centres completely bypassed, sidelined and bypassed them; the home remained the fun place where children learnt

interpersonal, moral values and Ubuntu values and principles. Furthermore, the participants echoed the views that children who are appreciated at home develop self-confidence. Whilst the ECD Centres, were perceived by the participants in providing critical foundations, however, they fall short of transmitting cultural values to the learners. By nature, ECD Centres are formal structures and based on the participants' views; they restrict learners; freedom, spontaneity and creativity.

Recommendations

The views of the participants on the shortcomings of the centres have policy implications, in which a policy overhaul is recommended to align home-based values extended within the formal learning space. This overhaul is a response to a need for a holistic African value being embedded in ECD education framework.

References

- Alivermin, F. & Cavicchiole, E. (2019). *Relationships between Socio-cultural factors (gender, immigration, and Socio-economic background): Peer Relatedness and Positive Effects in Adolescents*. *Journal of Adolescence*, 7(6) 99-108.
- Anning, A., Cullen, J. & Fleer, M. (eds) (2009). *Early Childhood education: Society and Culture*. London: SAGE.
- Argenton, G. (01 May 2015) *Time for Experience: Growing up under the Experience Economy*. *Educational Philosophy & Theory* 47(9), pp. 918-934. From <https://doi.org/10.1080/00131857.2015.1035158>
- Babbie, E.R., & Mouton, J.C. (2005). *The Practice of Social Research*. Cape Town: Oxford University Press.
- Ball, J. (2019). *Bilingual Education starts with the mother-tongue*. *Studies in Africa The Gambia*. Retrieved from: <http://www.globalpartnership.org/bilin>
- Ball, J. (2006). *Developmental, Monitoring, Screening and Assessment of Aboriginal Young Children*. Findings of a Community University Research Partnership Paper, Presented at the Aboriginal Supported Childcare Conference. Nov. 23 2006. Vancouver, Canada.
- Barnes, H., Hall, K., Sambu, W., Wright, G & Zembe-Mkabile, W. (2017). *Review Research Evidence on Child Poverty in SA*. *Children's Institute*. Cape Town: NPC & SAMRC.
- Baskey, S. (2020). The Influence of Socio-Cultural Factors in Child Development. http://ijariie.com/AdminUploadPdf/THE_INFLUENCE_OF_SOCIO_CULTURAL_FACTORS_IN_CHILD_DEVELOPMENT_ijariie13113.pdf
- Berk, L.E. (2012). *Child Development*. 9th Edition. India: Pearson.
- Bertaux, D. & Thompson, P. (1993). *Between Generations: Family Models, Myths and Memories*. New York. Oxford University Press.
- Bertaux, D. & Thompson, P. (1997). *Pathway to Social Class: A Qualitative Approach to Social Mobility*. Oxford: Clarendon Press.

- Bhise, C.D. & Sonawat, R. (2016). Factors Influencing School of Children. *Research Journal of Recent Sciences*, 5(5),53-58. Retrieved from: www.isca.me
- Brendtro, L., Brokenleg, M. & Van Bockern, S. (2002). Reclaiming Youth at Risk Retrieved from: <http://www.reclaiming.com/content/about-circle-of-courage>.
- Bronfenbrenner, U. (1979). *The Ecology of Human Development: experiences by nature and design*. England: Harvard University Press.
- Bronfenbrenner, U. (1972). *Two World of Childhood, (US and USSR)*. Rockefeller Center, NY: Clarion Printing, Simon and Schuster.
- Calvert, K. (1992). Children in the House: The Material Culture of Early Childhood, 1600-1900. *Journal of Social History* (XI), 189.
- CDC Centre for Disease Control and Prevention. (2019/02/06). *Child Development Infant 0-1year olds Development Milestones*. Retrieved from: <https://www.cdc.gov/ncbddd/child>
- Creswell, J.W. (2015). *A Concise Introduction to Mixed Methods Research*. London. Los Angeles. Washington DC. Singapore: SAGE Publications.
- Creswell, J.W. (2014). *Research Design Qualitative, Quantitative and Mixed Methods Approaches. 4th Edition*. Los Angeles: SAGE.
- Department of Education, SA. (2001). *Education White Paper 5 on ECD. Meeting the challenges of Early Childhood Development in South Africa*. Executive Summary. Pretoria: DoE. Retrieved from <http://www.education.gov.za>.
- Department of Social Development, & UNICEF (2008, Feb). Parental/Primary Caregiver Capacity Building Training Package. Pretoria, Government Printers
- Department of Social Development, & UNICEF. (2012). *Violence Against Children in South Africa*. Pretoria: Government Printers.
- Department of Social Development. (2013). List of Services Offered to the Public. Retrieved from: <http://www.dsd.gov.za/index>.
- Department of Social Development, & UNICEF. (2015). *National ECD Curriculum Framework for 0-4-year olds*. Pretoria: Government Printers.
- Department of Social Development, & UNICEF. (2015). *National Integrated ECD Policy 2015*. Pretoria: Government Printers.
- Dreikurs, R. (1964). *Democratic and Autocratic Child Rearing*. Retrieved from: degruyter.com/document.
- Dube, P.S. (2015). *An Exploratory Study of Parent Involvement in ECD centres in Masiphumelele, Cape Town*. Retrieved from: <https://open.uct.ac.za/handle>
- Du Plessis, S. & Louw, B. (2008). *Challenges to Preschool Teachers in Learners' acquisition of English as Second Language*. *South African Journal of Education*, 28(1), 53-76.

- Edinyang, D. S., & Cletus, P. N. (2014). Socio-cultural factors affecting the teaching and learning of social studies in Nigeria. *Journal of Education and Practice*, vol. 5(24).
- Eitel, J. (2017). Factors Affecting Early Childhood Development
<https://www.hellomotherhood.com/article/560572-the-effects-of-bad-parenting-on-children/>
- Evans, J. (2006). *Parenting Programmes: an important ECD interventions strategy*. UNESCO, EFA Global Monitoring Report 2007/ED/EFA/MRT/PI/12. Strong Foundation: Early Childhood Care and Education. Retrieved from: unesdoc.unesco.org/images.
- Farquhar, S.E. (2003). Quality Teaching Early Foundation: Best Evidence Synthesis Iteration (BES). Retrieved from: www.educationcounts.govt.nz.
- Fleer, M., Hedegaard, M., & Tudge, J. (2009). *Childhood Studies and the Impact of Globalization: Policies and Practices at Global and Local Level*. World Yearbook 2009. New York: Routledge.
- Garcia, M., Pence, A. & Evans, J.L. (2008). *African Future, Africa's Challenge: Early Childhood Care and Development in Sub-Saharan Africa*. Washington DC. World Bank © World Bank <https://openknowledge.worldbank.org/handle/10986/6365>
- Gender Links for Equality and Justice. (2011). *Children go Hungry as Poverty Bites Deep-Cape Town*. July 13, 2011 Cape Times SA. Retrieved from: <https://genderlinks.org.za/program>.
- Huang, Y. C. (2018). How culture influences children's development. Lecture in psychology, Bournemouth University,
- Ilifa Labantwana. (2017). *SA Early Childhood Review*. Claremont, Cape Town: DG Murray Foundation, Douglas House.
- Isenberg, J.P. & Jalongo, M. R. (2003). *Major Trends and Issues in Early Childhood Education: challenges controversies and insights*. New York: Teachers College Press.
- Kendra, C. (2013). *Theories Developmental Psychology. The Pre-operational Stages of Cognitive Development*. Development Psychology. Retrieved from: <http://www.verywellmind.com/piaget/Piagets-concepts>
- Leer, V.E., Burkam, D.T. & Dwyer, J. (2009 June) School Mobility in the Early Elementary Grades. University of Michigan. ResearchGate
- MacNaughton, G., Rolfe, S.A. & Siraj-Blatchford, I. (2001). *Doing Early Childhood Research, International Perspectives on Theory and Practice*. Philadelphia: Open University Press.
- Maguire, M. & Delahunt, B. (2017). Doing a Thematic Analysis: A Practical, Step-by-Step Guide. *AISHE Journal*, 3. pp1-14

- Makin, L. Campbell, & Diaz C. J. (1995). *One Childhood Many Languages*. Australia: Pymble NSW.
- McClelland, M.M., Kessenich, M. & Morrison, F.J. (2003). Pathways to early literacy: the complex interplay for child, family, and sociocultural factors. *Advances in Child Development and Behaviour*, 31, 414-440.
- Mercer, N., Ahmed, A. & Warwick, P. (2014). *The Conversation: Explainer: what is Oracy and why should every child be taught it*. Cambridge. University of Cambridge.
- Miles, M.B., Huberman, A.M. & Saldana, J. (2014). *Qualitative Data Analysis, a Methods sourcebook*. 3rd Edition. Washington DC. SAGE Publications.
- Mligo, I. R. (2020). Early Childhood Education in a Sociocultural Context: A Documentary Review. *Asia Pacific Journal of Multidisciplinary Research* Vol. 8 No.3, 88-95
<http://www.apjmr.com/wp-content/uploads/2020/07/APJMR-2020.8.3.11.pdf>
- Moodly, A., Sotuku, N., Schmidt, K. & Phatudi, N. (2019). *Early Childhood Care and Education (0-4): A Transdisciplinary Approach*. South Africa: Oxford University Press.
- Moyles, J. (2001) Passion, Paradox and Professionalism in Early Years Education. *Early Years. An International Research Journal*, 21(2), 81-95.
- NAEYC & NAE. (2002). Early Learning Standards: Creating the Conditions for Success. Retrieved from: www.naeyc.org/dap.
- Neufeld, G. & Matè, G. (2006). *Hold onto your kids: Why Parents Need to Matter More than Peers*. New York. Ballantine Books.
- Nolan, A., Macfarlane, K. & Cartmel, J. (2013). *Research in Early Childhood*. London: SAGE.
- Nsamenang, B.A. (2008). *Constructing Culture in Families*. In Brooker, L. & Woodhead, M (eds) *Social Inclusion and Respect for Diversity: Developing Positive Identities*. Milton Keynes: The Open University Press.
- Nsamenang, B. A. (2008b) Contemporary Issues in Early Childhood Agency in Early Childhood Learning and Development in Cameroon. *International Journal of Educational Policy, Research and Practice*, 8(1).
- Patton, M. Q. (2002). *Qualitative Research and Evaluation Methods*. 3rd edition. New Delhi: SAGE.
- Patton, M. Q. (2015). *Qualitative Research and Evaluation Methods*. 4th Edition. New Delhi: SAGE.
- Patton, M.Q. & Cochran, M. (2002). *A Guide to Using Qualitative Research Methodology*. Thousand Oaks, CA: SAGE.
- Pence, A. (2011). Early childhood care and development research in Africa:

- Historical, conceptual, and structural challenges. *Child Development Perspectives*, 5(2), 112-118
- Pence, A., & Nsamenang, B.A. (2008.) *A Case for ECD in Sub-Saharan Africa*. The Hague. Bernard van Leer Foundation.
- Piaget, J. (1989). *Piaget Theory of Cognitive Affective Development 4th Edition* by Barry Wadsworth. London. NY. Longman Inc.
- Piaget, J. & Inhelder, B. (1991). *The Psychology of the Child*. New York: Basic Books.
- Reader's Digest Universal Dictionary*. (2010). London: Reader's Digest Association Limited.
- Rogoff, B. (1990). *Apprenticeship in Thinking: Cognitive development in Social Context*. New York: Oxford University Press.
- Rogoff, B. (1999). Cultural Variation in Management of Attention by Children and their Caregivers. *Development Psychology Journal*, 35 (4), 1079-1090.
- Schweinhart, L.J., Weikart, D. P., Roopmarine, J. & Johnson J. E. (2010). *The High Scope Model of ECE*. Michigan: High Scope Educational Foundation.
- September, S.J., Rich, E.G., Roman, N.V. (2016). The Role of Parenting styles and Socio-Economic Status in Parents' Knowledge of Child Development. *Early Child Development and Care*, 186(7), pp1060-1078.
- Serpell, R., & Nsamenang, A. B. (2014). Locally relevant and quality ECCE programmes: Implications of research on indigenous African child development and socialization: Early childhood care and education working paper series
- Share, M., Kerrins, L. & Greene, S. (2011). *Developing Early Years Professionalism: An Evaluation of the Early Learning Initiatives*. Dublin: National College of Ireland Children's Research Centre.
- Shizha, E. (2014). Indigenous knowledge systems and the curriculum. In G. Emeagwali & G. J. S. Dei (Eds.), *African indigenous knowledge and the disciplines* (pp. 113-129). Rotterdam: SENSE.
- Siraj, I., Taggart, B., Sylva, K., Sammons, P., Melhuish, E. (1999) Towards the Transformation of Practices in ECE: The Effective Provision of Preschool Education (EPPE) project. March, 2008. *Cambridge Journal of Education*, 38 (1).
- Smith, A. B. (2013). *Understanding children and childhood: A New Zealand perspective* (5th ed.). Wellington: Bridget Williams Books Ltd.
- Smith, L.M. (2012). *Families, Education and Giftedness: Case Studies in the Construction of High Achievement*. USA: Sense Publishers.
- Statistics South Africa. (2013). *Millennium Development Goals Country Report, 2013*. Pretoria: Statistics SA.

- Steel, P., Teras, V., Uggerslev, K. & Bosco, F. (2018). The Happy Culture: a Theoretical Meta-Analytic and Empirical Review of the Relationship between Culture, Wealth Subjective Well-being. Retrieved from: <http://www.pubmed>.
- Thompson, M. Early Childhood Pedagogy in a Socio-cultural Medley in Ghana: Case Studies in Kindergarten. *IJEC* **51**, 177–192 (2019).
<https://doi.org/10.1007/s13158-019-00242-7>
- UNICEF, S.A. (2013). *Progress and Challenges. Annual Report 2013*. UNICEFSA Publishers. Retrieved from: <http://www.unicef.org/southafrica/854/10955.html>.
- Vygotsky, L.S. (1978). *Mind in Society: The Development of Higher Psychological Process*. Cambridge: Harvard University Press.
- Woodhead, M. (2006). Changing Perspectives in Early Childhood: Theory, Research and Policy. *International Journal of Equity and Innovation in Early Childhood*, 4(2), pp.1-43.
- World Health Organisation (WHO) (13 January, 1999). A Critical Link: interventions for physical growth and psychological development: A Review. Document number: WHO/CHS/CAH/ 99.3
- Yin, K.R. (2011). *Case Study Research Design and Methods. 5th Edition*. Thousand Oaks, CA: SAGE.
- Zulu, N. (1996). Code-switching or No Code-switching: What is the Answer? *SAAALT Journal for Language Teaching*, 30, 104-110.

USING UBUNTU PRINCIPLES IN AN ENDEAVOUR TO DECOLONIZE CURRICULUM IN THE SOUTH AFRICAN HIGHER EDUCATION SECTOR

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Abstract

With reference to teacher education, this paper makes the case for the applicability of the Ubuntu ideology in decolonizing the curriculum in South African higher education. Decolonization can be broadly construed as a term for a range of initiatives to counter the distinct but related processes of colonization and racialization, to implement transformation and redress in relation to the historical and contemporary effects of these processes, and to develop and maintain the modes of knowing, being, and relating that these processes seek to eradicate. One of the most widely accepted axioms in the world, Ubuntu Philosophy is now widely accepted in academia and politics. In today's neoliberal, globally integrated society, Ubuntu stands out as a potential ecopolitical alternative. It is a form of knowledge that advances our humanity. This implies that societies should work to hegemonize the Ubuntu ideology to thrive in terms of human growth and development. Ubuntu ideology should occupy a substantial amount of space in the South African educational system since education is an essential tool for changing people's mindsets and attitudes. Yet, it appears that the South African educational system, especially teacher education, is not doing enough to ingrain and include the values of Ubuntu. This paper, therefore, examines relevant research studies on Ubuntu and the decolonization of education in South Africa and makes the case for using Ubuntu, an African philosophy of education, as a model for decolonizing curricula in higher education across the board, not just in South Africa but also globally.

Keywords: Ubuntu Ideology; Decolonisation; decoloniality; teacher education; Communalism

Introduction

One of the most widely accepted axioms in the world, Ubuntu philosophy (Bhuda, & Marumo, 2022), is now widely accepted in both academia and politics. This suggests that societies should work to hegemonize the Ubuntu ideology to promote social justice and human development. Given that teachers are the frontline personnel in the process of shaping and forming the next generation of citizens and education being an essential tool for changing peoples' mindsets and attitudes, a considerable portion of teacher education curriculum should be devoted to the Ubuntu ideology. Hegemonizing and integrating Ubuntu philosophy in teacher education could address many social ills plaguing our societies. Currently, it appears that there is insufficient effort being made to instill and integrate the values of Ubuntu in the teacher education curriculum (Zambylas, 2018;

Maluleka, 2019). This paper explores how Ubuntu's philosophical foundations can be used as tool to shape the delivery of teacher education curriculum in the context of decolonization of higher education curriculum agenda.

The concept of the Ubuntu value system in the context of teacher education represents the all-encompassing strategy that exemplifies the principles of the Ubuntu philosophy. These values do not have to be in any particular order, but usually follow one another. Communities that are driven by Ubuntu principles to establish and sustain their networks of support for one another. The pursuit and maintenance of social justice is central to the existence of these communities. The Ubuntu-driven societies are aware that their moral compass is not one of avarice and self-interest, but one of reciprocity, or always returning the favour. Throughout their interactions, members of communities accept responsibilities for their actions and attitudes. Communities' connections are marked by respect for oneself and other people's dignity as well as compassion for their fellow humans. Over time, these communities are sustained and ensured of survival by the consistent observance of these fundamental ideals.

Before making a case for embracing Ubuntu principles as another example that may be used to decolonize curricula in the higher education sector and explaining the relevant literature, this paper first conceptualizes the decolonization of curriculum and Ubuntu philosophy in connection to the educational setting. Afterwards, it discusses the significance of Ubuntu principles in education and attempts to position them in the teacher preparation curriculum.

Decolonization of curriculum and Ubuntu philosophy

Decolonization of Curriculum

There have long been cries for decolonizing higher education in South Africa. Long before the most recent and popular demonstrations, like those seen in South Africa, especially #FeesMustFall, the colonial institutions of African universities have been challenged (Alexander, 2002; Mamdani, 1996, 2016; Mbembe, 2001, 2016; Nyamnjoh, 2012; Zembylas 2018). Although decolonization has various dimensions, including the political, economic, cultural, material, and epistemic (Maldonado-Torres, 2011), it can be broadly construed as an umbrella term for varied efforts to resist the distinct but intertwined processes of colonization and racialization, to enact transformation and redress in reference to the historical and ongoing effects of colonization and racialization (Stein & Andreotti; Zembylas 2018).

The exploration of what decolonization implies at the level of university curricula has increased (Helena, 2016; Higgs, 2016; Le Grange, 2016; Luckett, 2016; Zembylas, 2018), but there has been less theorization of what decolonization can entail for higher education curriculum implementation, pedagogy and practice (Zembylas, 2018). The paper, therefore, contends that there is a practical and political need to critically consider what it means to decolonize higher education curriculum in South Africa and globally using discourses and practices of Ubuntu philosophy that reassert humanity in knowing and knowledge-making. Given that current higher education institutions in South Africa are involved in decolonization of curriculum projects, it is crucial to develop new educational

language and curriculum practices that go beyond the normalized grammar of the colonial structures of African universities. The concept of curriculum decolonization is predicated on the notion that universities are epicentres of knowledge generation, which is based on the understanding that people play important roles in this process and that knowledge produced transforms humankind as a whole. This understanding implies that knowledge is based on human principles irrespective of colour, culture and geopolitical location as it is human being who takes charge of knowledge production. This idea is collaborated by Santos (2014) who highlighted that in order to advance global social justice, we start challenging the ways in which cognitive injustice is constructed across all educational contexts, policies, and theories. Santos (2014) argued that the Southern hemisphere represents human suffering and resistance to colonialism, imperialism, and capitalism. His phrase ‘epistemologies of the South’ highlights the distinct epistemologies that have developed in the South, demonstrating that the region is not only geographical but also an epistemic and political marker—a source of distinctive knowledge that has resulted from the experience of various forms of oppression. The delegitimization of Southern epistemologies, according to Santos (2014), is referred to as ‘the murder of knowledge’ and is a process he terms ‘epistemicide’ (Zembylas, 2018).

The paper, therefore, aims to depart from the notion that knowledge is Eurocentric and endeavours to integrate perspectives that have traditionally been under-represented, hence a call for the decolonization of education. This paper endeavours to challenge educators to consider non-Western knowledge since Third World topics have historically been under-represented in the curriculum. Subedi (2013) further noted that the accommodation method, that is, embracing both non-Western and Western, may exploit the misconceptions and stereotypes that have emerged as a result of the lack of global perspectives to promote an inclusive curriculum. Similar demands might be made on educators to conceptualize concepts like history and culture outside the confines of the nation-state and to incorporate a variety of readings or viewpoints when teaching global events and topics in world history and world geography (Ibid).

Many times, the school curriculum lacks important, debatable, and challenging facets of world knowledge. This absence is a result of a number of things, including the institutionalization of a limited nationalistic curriculum, the inadequate preparation of teachers in international affairs, and the general culture of the school, which downplays the importance of citizenship's global dimensions (Subedi, 2013). Sadly, school cultures frame world events as having less intellectual significance, particularly those that have occurred in Third World countries, through formal and informal teaching practices. For the affirmation and the intellectualization of African social capital, this idea of the suppression of non-western knowledge systems has colonial undertones and has to be rejected completely. This paper recognizes that educators must deal with learners and students whose minds have been shaped by coloniality agenda and Western modes of knowledge. As an illustration, students are socialized within a variety of informal global curricula that were created under the influence of the media, social, or religious institutions. Educators undoubtedly face a challenging task when students arrive in class with knowledge that supports the notion that the global Other is dangerous and culturally inferior (King & Schielmann, 2004).

Due to the suppression of Third World ideologies on hand and the promotion of Western knowledge systems on the hand, teachers frequently resist implementing the perceived controversial curriculum in the classroom. In doing so they want to avoid parental and public scrutiny, especially when it comes to subjects that might call into question the nation-state of the United States' economic, political, and military policies around the world (Subedi, 2013). This paper suggests that using instructional strategies founded on Ubuntu ideals and principles, local and global challenges should be equally addressed in school curricula. To build communities and societies that are organized around social cohesion principles and unified by ideals of humanity, this paper argues for the elevation of all knowledge systems.

Ubuntu philosophy

As a philosophy, a perspective, and a way of life, Ubuntu is multifaceted and difficult to explain, however it can occasionally be done so. According to Hailey (2008), Ubuntu is very much a personality trait, attitude, and way of life. In government documents, juridical methods are referenced, but it also has a strong personal element (Ibid). In discussions on how to combat the Covid-19 pandemic in South Africa and abroad, the individual collective approach of Ubuntu was also promoted. As a demonstration, when a person follows the COVID-19 rules, which include hand washing, avoiding close contact with others, and wearing a face mask, he/she is simultaneously self-protecting against the coronavirus and protecting others. For instance in South Africa, President, Ramaphosa stated that people must save lives and be accountable for both their own and other people's health (Steytler, de Visser & Chigwata, 2021)). The Covid-19 pandemic heightened the Ubuntu values of compassion that saw the coming together and taking active responsibility for social causes such as supporting organizations that provided communities with food boxes (Du Plessis, 2020).

Ubuntu is a principle that appears in many African communities and takes many different forms (Sotuku and Duku, 2014). Although Ubuntu is pronounced differently in each of the African languages, the African proverb 'Ubuntu' (which means 'people are human via their interactions with other people') underlines that no one can survive without the support of others (Letseka, 2011). Ubuntu is based on humanism and connects the individual to the group (Sotuku & Duku, 2014). It emphasizes on accepting someone as a unique human being who embodies qualities like respect, kindness, love, and compassion and who is motivated by principles like interdependence and collectivity, hospitality and sharing, interconnection, belongingness, and social cohesiveness (Ibid).

Ubuntu, which translates to 'a person is a person by other people', is a Zulu/Xhosa word (umuntu ngumuntu ngabantu) (Iline & Phillip, 2019). Several African languages such as, Swahili, Shona, IsiSwati, Yoruba and others have nouns in common with Ubuntu, whose literal translation into English is 'humanness' (Bolden, 2014; Iline & Phillip, 2019). It distinguishes itself from other philosophies since it is predicated on the notion that hatred only lasts for a short period (Mazrui, 2001). Along with providing residents with the required skills, it also places a strong emphasis on the teaching of effective communication, reconciliation, and strategies for eradicating and letting go of hatred. It enables people to

continue demonstrating kindness and tenacity in organizations and communities (Mazrui, 200; Iline & Phillip, 2019). The idea of Ubuntu is a counterbalance to Western individualistic and utilitarian philosophies, which place an emphasis on individualism and tend to neglect humanness to a greater extent (Nussbaum, 2003 & Bolden, 2014). The Ubuntu principle promotes social cohesion, an essential pillar of African societies' existence (Mbigi & Maree, 2005). When used in organizational management, the Ubuntu concept solidifies its tenets to ensure the organization's longevity (Ibid).

An African is not a hardy individual, but a person who lives in a community. Individuals are considered as contributing to the growth of the entire society in African culture (Letseka, 2012; Letseka & Venter, 2012). African societies are known for their strong sense of community. Due to their willingness to work together, care for one another, and share social capital and material resources, they are able to overcome obstacles like hunger, isolation, poverty, and other hardships (Letseka, 2012). Community customs that bring people together can occasionally be prejudiced. For example, certain African traditions stigmatize those who have disabilities, believing they are the result of curses or witchcraft (Ndlovu, 2016). Yet, Ubuntu, is concerned with the benefit of humanity, cannot tolerate such discriminatory behaviour (Phasha, 2016; Akabor, & Phasha, 2022; Majoko, 2023). As maintained by Ubuntu ideology, individuals should consider whether their actions will strengthen and better the community in which they live. It also means that people are more inclined to do well if they are treated favourably (Nussbaum, 2003; Mbigi & Maree, 2005; Iline & Phillip, 2019).

The relevance of Ubuntu philosophy in teacher education

Since education is a crucial vehicle that is used to change peoples' mindsets and attitudes, and teachers regarded as foot soldiers on the implementation policies which based on the national, political and economic ideologies Ubuntu philosophy should occupy a significant amount of space in teacher education (Bondai & Kaputa, 2016). Ubuntu emphasises communalism and therefore is concerned about community, and the collective nature of humanness (Phasha, et al, 2017). Hence (Letseka & Venter, 2012) allude that what happens to the individual happens to the whole group, and what happens to the whole group happens to the individual. This implies that embracing Ubuntu in teachers education may contribute in solving the social ills which are as a results of Western individualistic modes of life. Yet, the mainstreaming of Ubuntu in education has far reaching benefits which include peace harmony, togetherness, respect, teamwork reconciliation and etc. (Ibid). Currently, there seems to be an inadequate effort to instil and integrate the values of Ubuntu in teacher education curriculum, including teaching methodologies and yet hegemonizing and integrating Ubuntu philosophy in teacher education could solve a lot of social ills which are prevailing in our societies (Maluleka, 2019). Furthermore, there is dearth of literature that focuses on the integration of Ubuntu philosophy in teacher education curriculum (Mahaye, 2018).

Although Ubuntu philosophy is recognised worldwide there seems to be little effort that is made by teacher education institutions to formally embrace and integrate Ubuntu in the teacher education curriculum (Maluleka, 2019), yet Ubuntu philosophy can equip teachers with skills and attitude that could empower them dealing with classroom challenges and

produce citizens who would be able to solve societal problems. (Sotuku & Duku, 2014). For instance, the media reports in South Africa have been reporting incidents of violence, drug abuse, bullying and hate crimes happening within the schooling system (News24, 22 November 2018; Independent Online, 15 April, DSTV Chanel 403, 23 November 2021). It is not uncommon to hear the occurrences of violent nature such as stabbing in schools (Mkhomi, 2016; Msila, 2009 Maluleke, 2019). This may be indicative that learners produced by South African schooling system might not be fully prepared to live with others in a peaceful environment (Msila, 2009). Colonization disregarded the indigenous African Ubuntu philosophies that would assist in laying the foundation for a culturally responsive environment for teaching and learning (Msila, 2009 and Maluleka, 2019), and there seems to be little effort to undo this unfair dominance of African Philosophies by Western traditions (Mahaye, 2018). South African higher education institutions and schools are still inundated with a challenge to close the gap created by the colonial past. The schooling system is still run within the principles of western traditionalists that championed the education system hundred years ago and this stifle our country's education system (Msila, 2020 and Mahaye, 2018) and hampers economic growth and development.

The universal acceptance of Ubuntu philosophy has gained a lot of momentum. Some scholars believe that embracing Ubuntu principles in education will open up a new dawn as this will involve teaching an African child like never before (Mahaye, 2018, Msila, 2020). Integrating Ubuntu in education is believed to assist enhancing quality education and thereby going an extra mile in making learners acquire skills and talents which will in turn ensure the economic development and growth. (Sotuku & Duku, 2014). Some scholars (Msila, 2020 and Letseka, 2012) believe that African education can only be relevant by ensuring that the values of Ubuntu are integrated in all stages of education. The philosophy of Ubuntu is considered important and should be understood within the context of inclusivity, inclusion, equality and social justice. If education is to free the minds of the oppressed, destroy the social classes and create human consciousness within African societies, it must be understood within the context of Ubuntu (Msila, 2009 and Letseka, 2012). Lefa (2015) posits that, schools should encourage learners to work cooperatively through sharing and engaging with others in the classroom as Ubuntu in schools is an inclusive approach which calls for dignity, respect in our mutual relationships with others. This means that teachers as the custodians of learners' education should be well vest with Ubuntu philosophy. If teachers understood Ubuntu it means they can man schools and classrooms in such a way that learners are socialized and taught the values of Ubuntu.

The situation in South African schools is that learners are continuously showing antisocial behaviours. It is very common to hear reports of bullying, violence and drug abuse (Maluleke, 2019; Mkhomi, 2016; Msila, 2020). If teachers are to become creators of society of thinkers of high moral standards they need to be trained to acquire an understanding of society of thinkers, and Ubuntu principles such as ethics, respect, morality, tolerance, compassion and humanity. These principles are the steppingstones for economic growth and development. Ubuntu broadens one's mind into a classroom practice and ignite a new innovativeness required in the 4th industrial revolution (Mahaye, 2018).

Bondai and Kaputa (2016) call for the mainstreaming of Ubuntu in the education curricula, including assessment activities. The inclusion of Ubuntu in education is long overdue and has far reaching benefits, which amongst others include guarantees peace, harmony, togetherness, respect, teamwork, reconciliation and hard work. Assessment as an integral part of teaching and learning in SA institutions, calls for a sensitivity to the local context and knowledge systems (Beets & Van Louw, 2005). Assessment activities that associated with Ubuntu may include group research, group assignments, group presentations which among other improve personal and professional and communication abilities, reduces assessment anxieties and assist learners to learn from each other. Incorporating Ubuntu in assessment therefore promotes co-operative endeavours rather than individual advancement and stressing the concepts of equality and responsibility (Brock-Utne, 2016).

Conclusion

The relevance of Ubuntu philosophy in teacher education curriculum cannot be over emphasized. As indicated earlier, mainstreaming of Ubuntu in education has more advantages than disadvantages. The advantages are among others include peace harmony, togetherness, respect, social transformation, teamwork and reconciliation. Although Ubuntu has such important benefits, it appears that western traditional philosophies and ways of knowing are dominating the curriculum in South Africa and other countries. This neglect especially of Ubuntu Philosophy may deny pre-service teachers an opportunity to equip them with teaching methodologies, skills and attitude that could empower them dealing with classroom challenges and produce citizens who would be able to solve societal problems within and outside South Africa.

References

- Akabor, S., & Phasha, N. (2022). Where is Ubuntu in competitive South African schools? An inclusive education perspective. *International Journal of Inclusive Education*, 1-17.
- Alexander N (2002). *An ordinary country: Issues in the transition from apartheid to democracy in South Africa*. Scottsville, South Africa: University of Natal Press.
- Beets, P. & Van Louw, T. (2005). Education transformation, Assessment and Ubuntu in South Africa. In Waghid, Y (ed.) *African(a) philosophy of education: Reconstructions And deconstructions*. Stellenbosch: Stellenbosch University Press.
- Bhuda, M. T., & Marumo, P. (2022). Ubuntu Philosophy and African Indigenous Knowledge Systems: Insights from decolonization and indigenization of research. *Gender and Behaviour*, 20(1), 19133-19151.
- Bolden, R. (2014). Ubuntu. <https://www.researchgate.net/publication/259849297> accessed, 29/05/2021.
- Bondai, B. & Kaputa, T. (2016). Reaffirming Ubuntu / Unhu mainstreaming in the education curricula : Panacea for sustainable educational change in Southern Africa. <https://www.semanticscholar.org/paper>. Accessed: 23/03/2023

- Brock-Utne, B. (2016). The ubuntu paradigm in curriculum work, language of instruction and assessment. *International Review of Education*, 62, 29-44. <https://www.researchgate.net/publication/293638137>
- Broodryk, J. (2002). *Ubuntu: Life lessons from Africa*. Pretoria: National Library.
- DSTV Channel 403 (2021). Eastern Cape learner taking her life after receiving extensive bullying. 23 November 2021. [DSTV 403 23/11/2021 EC Learner taking her life afterreceiving extensive bullying - Search \(bing.com\)](#)
- Du Plessis, A (2020) Make South Africa great again-its time for a new social contract, Daily Maverick daily.maverick.co.za/opinionista/2020-10-05-make-south-africa-great-again-Its-time-for-a-new-social-contract
- Hailey, J. (2008). *Ubuntu: A literature review*. Document. London: Tutu Foundation.
- Heleta S. (2016). Decolonisation of higher education: Dismantling epistemic violence and Eurocentrism in South Africa. *Transformation in Higher Education*, 1(1):1–8.
- Higgs P. (2016). The African renaissance and the transformation of the higher education curriculum in South Africa. *Africa Education Review*, 13(1):87–101.
- Iline, C. S., & Phillip, H. (2019). Philosophical Reflections on Ubuntu in the Context of Cooperative Learning. *Int. Res. High. Educ*, 4, 10-24.
- Independent Online (2021). Justice for Lufuno: Three pupils have been suspended- Limpopo Education, 16 April 2021. <https://www.iol.co.za/news/south-africa/limpopo/justice-for-lufuno-three-pupils-have-been-suspended-limpopo-education-216ec6f2-3131-4391-a84c-b171ba7fb2c0>
- King, L., & Schielmann, S. (2004). *The challenge of indigenous education: Practice and perspectives*. Paris: Unesco.
- Leap, B., & Thompson, D. (2018). Social solidarity, collective identity, resilient communities: Two case studies from the rural US and Uruguay. *Social Sciences*, 7(12), 250.
- Lefa, B. J. (2015). Faculty of education and social sciences Cape Peninsula University of Technology Mowbray Campus South Africa 27 February 2015. https://www.researchgate.net/profile/BakenLefa/publication/274374167_The_movement_of_water_molecules_in_response_to_olute_concentration/links/551c51720cf20d5fbde51320/The-movement-of-water-molecules-in-response-to-solute-concentration.pdf. accessed 25 February 2023.

- Le Grange, L. (2016). Decolonising the university curriculum. *South African Journal of Higher Education*, 30(2):1–12.
- Letseka, M. (2012). In defence of Ubuntu. *Studies in philosophy and education*, 31, 47-60.
- Letseka, M. M., & Venter, E. (2012). How student teachers understand African philosophy. *koers*, 77(1), 1-8.
- Luckett, K. (2016). Curriculum contestation in a postcolonial context: A view from the South. *Teaching in Higher Education*, 21(4):415–428.
- Mahaye, N. E. (2018). The philosophy of ubuntu in Education. *Research Gate*, 3.
- Majoko, T. (2023). An Afrocentric perspective on inclusive education and Ubuntu. In *Autism* (pp. 1-5). Routledge.
- Maldonado-Torres, N. (2011). Thinking through the decolonial turn: Post-continental interventions in theory, philosophy, and critique—An introduction. *Transmodernity: Journal of Peripheral Cultural Production of the Luso-Hispanic World*, 1(2):1–14.
- Maluleka, K. J. (2019, September). Indigenous African philosophy of Ubuntu as a foundation for a conducive environment for culturally responsive teaching and learning in South Africa. In *International conference new trends in teaching and learning*, Barcelona, Spain (pp. 5-7).
- Mamdani, M. (1996). *Citizen and subject: Contemporary Africa and the legacy of latecolonialism*. Princeton, NJ: Princeton University Press.
- Mamdani, M. (2016). Between the public intellectual and the scholar: Decolonization and some postindependence initiatives in African higher education. *Inter-Asia Cultural Studies*, 17(1):68– 83
- Mazrui, A. (2001). *Afro-Arab Crossfire: Between the Flames of Terrorism and the Force of Pax*. New York, USA State University of New York at Binghamton,
- Mbembe, A. (2001). *On the postcolony*. Berkeley, CA: University of California Press.
- Mbembe, A.J. (2016). Decolonizing the university: New directions. *Arts and Humanities in Higher Education*, 15(1):29–45.
- Mazrui, A. *Afro-Arab Crossfire: Between the Flames of Terrorism and The Force of Pax*, Americana Director, Institute of Global Cultural Studies, Albert Schweitzer Professor in the Humanities, State University of New York at Binghamton, New York, USA (Presented at a special seminar sponsored by the Ethiopian International
- Mazrui, A. *Afro-Arab Crossfire: Between the Flames of Terrorism and The Force of Pax*, Americana Director, Institute of Global Cultural Studies, Albert Schweitzer

Professor in the Humanities, State University of New York at Binghamton, New York, USA (Presented at a special seminar sponsored by the Ethiopian International

Mbigi, L. & Maree, J. (1995). *The spirit of African transformation management*. Pretoria: Sigma.

Mkhomi, M.S. (2016). *The role of Intergroup Conflict in School-Based Violence in the Johannesburg Central Education District Schools: Towards a strategy for Peace Education implementation*. (Doctoral Thesis). University of Fort Hare, South Africa.

Msila, V. (2009). Africanisation of education and the search for context and relevance. *Educational Research and Review*, 4(6), 310-315.

Msila, V. (Ed.). (2020). *Developing Teaching and Learning in Africa: Decolonising Perspectives*. African Sun Media.

Ndlovu, H. L. (2016). African beliefs concerning people with disabilities: Implications for theological education. *Journal of Disability & Religion*, 20(1-2), 29-39.

News24 (2022) Violence and killing at SA schools: These stories shocked us in 2018, 22 November 2022. <https://www.news24.com/news24/violence-and-killing-at-saschools-these-stories-shocked-us-in-2018-20181122>

Nussbaum, B. (2003). 'African culture and Ubuntu: Reflections of a South African in America', *World Business Academy*, 17(1), 1-12.

Nyamnjoh, F.B. (2012). 'Potted plants in greenhouses': A critical reflection on the resilience of colonial education in Africa. *Journal of Asian and African Studies*, 47(2):129–154.

Phasha, N. 2016. "Understanding Inclusive Education from an Afrocentric Perspective." In *Inclusive Education: An African Perspective*, edited by N. Phasha and J. Condry, 3–28. Cape Town: Oxford.

Phasha, N., Mahlo, D and Dei, G. (2017). *Inclusive Schooling and education in African context*. Rotterdam, Netherlands: Sense.

Santos, B. (2014). *Epistemologies of the South: Justice against epistemicide*. Boulder, CO: Paradigm.

Sotuku, N. & Duku, N.S., (2014), *Indigenous African theories in multicultural education*, in Okeke C, Van Wyk, M and Phasha, N (Eds) *Schooling, society and inclusive education*, Cape Town, Oxford University Press.

Stein, S. & Andreotti, V. (2017). *Decolonization and higher education*. In M Peters (ed). *Encyclopedia of educational philosophy and theory*. Singapore: Springer.

Steytler, N., de Visser, J., & Chigwata, T. (2021). South Africa: Surfing towards centralisation on the Covid-19 wave. In *Comparative Federalism and Covid-19* (pp. 336-354). Routledge.

Subedi, B. (2013). Decolonizing the curriculum for global perspectives. *Educational Theory*, 63(6), 621-638.

Uzowulu, O.E.& Dr. Chidiebere Obi, C. (2021). A Philosophical Apraisal of Pan-Africanism As A Remedy To Xenophobia In Africa. *Journal of African Studies*, 3(2), 95-105.

Venter, E. (2004). The notion of Ubuntu and Communalism in African Educational Discourse, *Studies in Philosophy and Education*, 23, 149-160.

Zembylas, M. (2018). Decolonial possibilities in South African higher education: Reconfiguring humanising pedagogies as/with decolonising pedagogies. *South African Journal of Education*, 38(4), 1-11.

SCAFFOLDING INSTRUCTIONAL STRATEGY AND SENIOR SECONDARY II STUDENTS' ATTITUDE TO READING COMPREHENSION IN ENGLISH LANGUAGE

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Abstract

This study investigated the effects of scaffolding instructional strategy on Senior Secondary students' attitudes to reading comprehension. The study adopted the pre-test, post-test and control quasi-experimental design. Intact classes of SS II comprising one hundred and twenty (120) participants from secondary schools in Odogbolu Local Government Area of Ogun State were purposively selected for the study. They were randomly assigned to: Scaffolding Instructional Strategy and Modified Conventional Method. The treatment lasted 12 weeks. Two instruments used were: the English Language Reading Comprehension Achievement Test ($r = 0.84$) and; the Students' Attitude to Reading Comprehension Questionnaire ($r = 0.87$). Instructional guides for each of the experimental and control groups were also employed. Twelve weeks were used for the treatment procedure. One null hypothesis was tested at a 0.05 level of significance. Data collected were analysed using Analysis of Covariance, Scheffe post-hoc test and a line graph to show significant differences. The findings of the study discovered and demonstrated that the use of scaffolding instructional strategy enhanced SSII students' attitude to reading comprehension in the English language ($F_{(1, 117)} = 17.253$; $p < .05$). It is, therefore, recommended that teachers in secondary schools should adopt the strategy to teach English language reading comprehension.

KEYWORDS: Scaffolding Instructional Strategy, Students' Attitude, English Language Reading Comprehension

Background to the Study

The development of all aspects of a nation's life is facilitated when much attention is given to literacy development. A nation's level of technology and scientific development is largely a reflection of its level of literacy development. It has been observed that a nation cannot be strong and competitive in a global economy and a democracy cannot fulfil its promise of opportunity for all if a large percentage of its citizens are illiterate. It is at the school setting that the importance of reading is best appreciated because books constitute the bulk of learning resources. A student's success depends on the extent to which he can obtain information from print quickly and efficiently.

Reading proficiency is equated with scholastic excellence. Reading proficiency is not only important in academic pursuits, it gives wide reading interests and this in turn can influence the personal and social adjustment of people. Reading proficiency is the royal road to knowledge, it is essential to success in all academic subjects. Reading involves a variety of interrelated activities: it is the ability of the brain to perceive, recognise, and interpret printed symbols. Reading is much more than word recognition; it is getting the meaning of individual words (Adejumobi, 2003). The essence of reading is therefore for comprehension purposes thus the major objective of reading instruction is to foster in each student the ability to understand printed symbols of a language.

Reading functions as a vital tool for information and knowledge processing. It is a pivot for all other school subjects that are content oriented. It is believed that reading as well as language competence are both the means and the end to educational attainment (Mohammed & Amponsah 2018 cited Jordaan, 2011). Reading comprehension is reading to understand the passage or the content read. It is a skill which can be decomposed into a set of sub-skills for example, sequencing the events in a story, being able to paraphrase, knowing the vocabulary, predicting outcomes of a story, making inferences, finding the main idea, summarising, applying the information given and so forth. Therefore, a lack of competence in reading could reasonably be expected to present an obstacle to effective formal education. No effective learning can take place without students' competence in reading. The incompetence of students in reading leads to their dropping out of school. This is because reading comprehension does not limit itself to English Language only but also to other school subjects.

Most students do not possess enough vocabulary to cope with reading comprehension and as a result, they do not only perform poorly in English Language but also in all other school subjects. Generally, students' poor performance in the English Language is evidence that they do not read and do not have good command of the language of instruction (Otenaike, 2005). Most students spend very little time reading at home. Apari (2010) noted that lack of phonetic laboratory, faulty pedagogy, dearth of material resources, family background, dearth of English Language teachers and ill-prepared English textbooks that flood Nigeria bookshops contribute to students' poor performance in English Language. Apart from these, poor study habits, poor motivation, lack of instructional materials, poor self-concept, poorly trained English language teachers, poor students attitude are some of the factors responsible for student's unsatisfactory performance in the English Language.

The importance of developing favourable attitude to reading is therefore a necessity since it has been shown through various researches that students' attitude to reading affects their proficiency in reading tasks. It has been opined that a positive attitude to school work relates directly to higher academic achievement among school children (Agboola, 2008) while Osikomaiya (2020) opined that a negative attitude to school work produces unfavourable achievement among students. Though, researchers still hold that there is a meaningfully strong relationship between attitude and achievement. Students need to develop and sustain positive attitudes towards the teaching and learning of English reading comprehension. Students that develop positive attitudes to reading are more likely to be

good and willing readers, take pleasure and have an interest in reading, they also become proficient readers and enjoy reading through their lifetime. Students' attitudes and interests are very important factors in the formation of good reading habit that promotes academic excellence.

If students see reading as a lifelong enablement, their attitude is bound to change. It is necessary therefore that students should be provided with the reading empowerment that will make them enjoy various school subjects. It is important then that reading is taught in such a way that it can cut across the various aspects of the school curriculum (Onakaogu & Ohia, 2003). Since attitude is very important in whatever one is doing in life, its importance cannot be neglected in the teaching and learning of reading. Attitude affects a child's ability to succeed in reading and both parents/guardians play a key role in the development of attitude towards reading (Avallone, 2005). Hence, attitude will be examined as one of the variables that are likely to determine students' academic performance in reading comprehension. An attitude is a product of socialization that is formed in the relevant environment through direct or indirect learning, and it helps to determine how people react to various people and objects. Gardner and Lambert (1972) said that learners who have favourable attitudes towards a language, its speakers and its culture tend to be more successful in their learning than those without it. It has been proven that a positive attitude, more often than not, leads to successful learning. Teachers and other educators generally believe that students learn more effectively and achieve better when they are interested in what they learn. It is imperative to note that students' attitudes would be improved when the student-centred method of teaching is adopted by the teacher.

Scaffolding is a strategy that gives temporary support or assistance provided by someone capable that permitting a student to perform a complex task. Vygotsky (1978) argued that cognitive development is enhanced through collaboration and social interaction in the Zone of Proximal Development (ZPD). The Zone Proximal of Development is seen as the gap between what a learner can accomplish independently and what can be accomplished in collaboration or with the guidance of a more experienced other (Brinner, 1999). The scaffolding strength rests on the constructivist approaches to teaching and learning. Scaffolding is a teaching process where presentation and demonstration by the teacher are contextualised for the learners. Thus, scaffolding involves the use of different interactive instructional techniques that move students gradually towards deeper comprehension and greater independence in the learning process (Popoola & Osikomaiya 2021). The guidance provided by the More Knowledgeable Other - MKO - in the ZPD in the form of a structural support mechanism is known as Scaffolding (Bruner, 1984). As the learner takes on more control of the task, the scaffolding is gradually removed, allowing the student full control and responsibility. Scaffolding occurs best in an environment where the learners are provided with the opportunity to communicate their thoughts through conversations (Rochler & Cantlon, 1997).

The learning of English largely depends on the way the item to be learnt is presented to the learner and the creative ability of the teacher in his presentation to the students. There is a need to use instructional approaches that are designed to give students the skills that are

necessary to construct their meaning from the passages. The use of conventional methods by teachers who deliver the content to students passively should be discarded. The situation has no doubt informed so many research efforts which have been directed towards finding alternatives to the use of conventional methods by teachers.

Statement of the Problem

Deficiency in learning the English language has a substantial negative effect on students' performance in nearly all school subjects. Furthermore, students' written communication in English bears evidence that contemporary Nigerian secondary school students can hardly read and comprehend text independently. The results of internal and external examinations in the English language indicate that students' comprehension ability is poor. The situation has been among other factors attributed to English language teacher's use of ineffective methods of teaching reading and students' attitude to reading comprehension. It is against this background that the study examined the effects of scaffolding instructional strategy on secondary school students' attitudes to English Language reading comprehension.

Hypothesis

A null hypothesis which stated that there is no significant main effect of treatment (Scaffolding Instructional Strategy) on students' attitudes in English Language reading comprehension was tested at a 0.05 level of significance.

Research Methodology

Research Design

The research adopted a pretest, posttest, and control group quasi-experimental design. The study adopted two levels of the independent variable (instructional strategy) Scaffolding Instructional Strategy and Modified Conventional Method. The dependent variable used in the study was the attitude to reading comprehension.

Sample and Sampling Technique

The target participants of this study consisted of students in public secondary schools in Odogbolu Local Government Area, Ogun State. Two senior secondary school II students (intact class) were selected for the study and 120 students participated in the study. Odogbolu Local Government Area of Ogun State was purposively selected for the study and students were randomly assigned to: Scaffolding Instructional Strategy and Modified Conventional Method. The treatment lasted 12 weeks

Research Instruments

One research instrument was used in this study:

- a. Questionnaire on Students' Attitude to Reading Comprehension (QSARC) and Cronbach's Alpha method was used to establish the reliability of the test. The reliability coefficient was 0.87.

Procedure

Twelve weeks was used for the treatment procedure. The research was carried out by visiting the two selected schools and the investigator organised a training programme for the research assistants and they were trained for two weeks. The questionnaire was administered to the participants as the pre-test assessment tool. The treatment was administered to the participants for a period of 8 weeks and after the treatment, an achievement test was administered to the participants as a posttest.

Results

Preliminary Analysis of Data

Table 1

Descriptive statistics of the post-test students' attitude to reading comprehension

Treatment Group	Mean	Std. Deviation	N
Scaffolding Instructional Strategy	70.3500	7.93368	60
Conventional Method Control Group	63.6500	9.59489	60
Total	67.0000	9.38979	120

The result in Table 1 revealed that participants in the scaffolding instructional method group had a mean score of 70.35 with a standard deviation of 7.93 whereas participants in the conventional method control group had a mean score of 63.65 with a standard deviation of 9.59.

Univariate Analysis of Covariance

Table 2

Tests of between-subjects' effects of post-test students' attitude to reading comprehension

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1348.886 ^a	2	674.443	8.631	.000
Intercept	11235.682	1	11235.682	143.778	.000
Attitude pre-test	2.186	1	2.186	.028	.867
Group	1348.272	1	1348.272	17.253	.000
Error	9143.114	117	78.146		
Total	549172.000	120			
Corrected Total	10492.000	119			

a. R Squared = .129 (Adjusted R Squared = .114)

The results in Table 2 indicated that there was a significant effect of scaffolding instruction on students' attitude to reading comprehension ($F_{(1, 117)} = 17.253$; $p < .05$). The hypothesis which stated that there is no significant effect of scaffolding on students' attitude to reading comprehension was not accepted by this finding. The implication of the finding was that instructing students with scaffolding instructional method has a significant gain on their attitude to reading comprehension.

Table 3

Pairwise comparisons of group differences in post-test students' attitude to reading comprehension

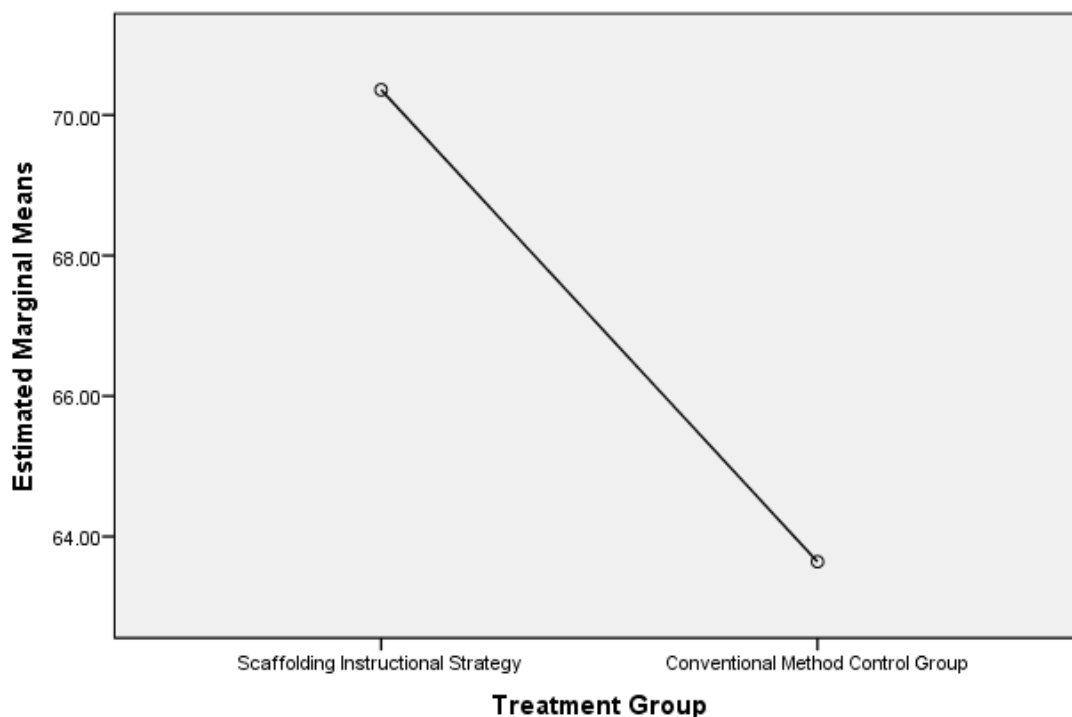
(I) Treatment Group	(J) Treatment Group	Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference	
					Lower Bound	Upper Bound
Scaffolding Instructional Strategy	Conventional Method (Control Group)	6.717*	1.617	.000	3.514*	9.919
Conventional Method (Control Group)	Scaffolding Instructional Strategy	-6.717*	1.617	.000	-9.919*	-3.514

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Results in Table 3 showed that scaffolding instructional strategy has a significant effect on students' attitude to reading comprehension over and above the conventional method ($MD = 6.717$; $std\ error = 1.617$; $p < .05$). This means that scaffolding instructional strategy was more effective than the conventional method in the improvement of students' attitude to reading comprehension. Therefore, the scaffolding instructional strategy was more effective than the modified conventional method. This order can be represented as Scaffolding Instructional Strategy > Modified Conventional Method. The difference between the post-attitude score of the control group and the two experimental groups is significant. This result is graphically illustrated in Figure 1.



Covariates appearing in the model are evaluated at the following values: Pretest Students' Attitude to Reading Comprehension = 69.4667

Discussion

There was a significant main effect of treatment on students' attitude to English language reading comprehension. The study revealed a significant main effect of treatment on students' attitudes to reading comprehension in the English Language. Looking at the two groups (scaffolding instructional strategy and modified conventional method), the modified conventional method had the lowest post-attitude mean score. The study confirmed that the scaffolding instructional strategy significantly developed students' positive attitudes to reading comprehension. This corroborates the findings of Osikomaiya (2013), Salau (2005) and Adeosun (2002) who discovered that methodology is significantly relevant to students' attitudes to learning. Furthermore, the study reveals that students in the scaffolding had a significantly higher post-attitude mean in reading comprehension than the modified conventional group. This may be because the students in the scaffolding instructional strategy group had better learning opportunities through interaction, dialogue and discussion; this is because the strategy involves the active participation of students. This showed that the more the students are exposed to language activities the better their attitude to learning the language.

Conclusion and Recommendations

This study has demonstrated that the use of the instructional scaffolds strategy is more effective in fostering students' attitudes to English reading comprehension than the conventional mode of instruction. In addition, the use of conversational dialogues which the scaffolding strategy embodied ensured students' engagement and active participation in English language lessons.

Implications of the Study

The findings of this study have profound implications for teaching reading comprehension in Nigeria because the scaffolding instructional strategy has been found to be an effective and viable alternative to the conventional method that is in practice in most of the schools in Nigeria. Scaffolding instruction should be utilised to improve cognitive achievement and the positive attitude of participants toward the English language. This will help to reduce the rate of failures in the English language.

Recommendations

The teachers of the English Language in Nigerian secondary schools should be encouraged to develop an interest in the use of student-centred instructional strategies to improve student's performance in English. The teaching of English language comprehension can be improved through the use of a scaffolding instructional strategy. Curriculum planners and experts in the English Language should design a curriculum that is student activity based. Also, textbook writers should incorporate strategies that promote independent reading. Teachers should through seminars and workshops acquaint themselves with innovative strategies such as scaffolding to use in class.

References

- Adeosun A.O. (2002) Effectiveness of prior language experience and whole language based situational strategies on students' achievement in an attitude to composition. PhD. Thesis. University of Ibadan.
- Adejumobi, T. (2003) *An analytic approach to reading comprehension and summary writing*. Awori-Lagos: Olomu Books Ltd.
- Agboola V.O. (2008). An evaluation of the use of English programme in polytechnics in South West Nigeria. PhD. Thesis. University of Ibadan.
- Apari, W.J. (2010) Challenges of Oral English pedagogy. *Ijagun Journal of Language and Literary Studies. International Journal of the Department of Languages. TASUED. IJOLLIS. 1.1. 156-164*
- Avallone, N.R. (2005). The impact of student attitudes about reading on reading progress. *Education and Human Development Mater's Theses 338.*
http://digitalcommons.brockport.edu/ehd_theses//338
- Brinneer, M. (1999). Lev Vygotsky. Retrieved May, 2005, from <http://curriculum.calstatela.edu/faculty/psparks/theorists/50/vygot.htm>
- Gardener, R. C. and Lambert, W. E. (1972). *Attitude and motivation in second language learning*. Rowley: Newsbusy House Publishing Company.
- Onukaogu, C.E. and Ohia, N. I. (2003) Literature in the reading curriculum. In Onukaogu, C.E.; Arun, A.E and Jegede, O.B. (Eds) *Teaching Reading in Nigeria: A Guidebooto Theory and Practice*. Newark, International Reading Association.

- Otenaika, A. T. (2005) Teaching reading comprehension and summary at the secondary school level in A. V. Jibowo Ed. Language, teaching and learning: A book of readings. Ibadan: Bounty Press Ltd
- Osikomaiya, M.O. (2009). A survey of the perception and attitude of junior secondary school students to reading habit. *African Journal for the study of educational issues online* Retrieved Nov. 2nd, 2010, from <http://ajeduionline.org/415.php>. 4. 3 & 4.
- Osikomaiya, M.O. (2013). Scaffolding context cueing instructional strategies and secondary school students' achievement in and attitude to English language reading comprehension. Unpublished PhD Thesis. Teacher Education Department, University of Ibadan
- Osikomaiya, M.O & Popoola T.E. (2020). Perspectives of gender differences, students achievement and attitude to reading comprehension. *ATBU Journal of Science Technology and Education* 8(2), 141-152.
- Popoola T.E & Osikomaiya, M.O. (2021). Impact of scaffolding strategy in the teaching of English language writing skills among secondary school students in Ogun State. *African Journal of Pedagogy* Vol. 10. 63-77
- Rochler, L.R and Carlton, D.J. (1997). Scaffolding: A powerful tin social constructivist classroom. In K. Hogan and Pressly Michael. Eds. Scaffolding students' learning. Massachusetts: Allyn and Bacon.
- Salau, A. K. (2005). An overview of the methodologies used in teaching French Language. *Journal of Studies in Humanities*.1(1), 14-15.
- Vygotsky, L. (1978) Mind in society. The development of higher psychological processes. M. Code, V. Scribner, John-Steiner and E. Souderman. Cambridge Eds: Harvard Press University.

SUSTAINABLE DEVELOPMENT: EFFECT OF TWO COGNITIVE BEHAVIOUR THERAPIES ON REDUCTION OF CRYSTAL METHAMPHETAMINE INTAKE AMONG UNDERGRADUATE YOUTHS IN ABIA STATE, NIGERIA

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Abstract

This study investigated the effect of two cognitive behaviour therapies on the reduction of Crystal Methamphetamine intake among undergraduate youths in Abia State. Quasi-experimental design of a pre-test, post-test and control group using a 3x2 factorial matrix was adopted for the study. The population consisted of all the undergraduate youths in Abia State. A purposive sampling technique was used to sample 30 undergraduate youths. The treatment consisted of Rational Emotive Behaviour Therapy and Self-Control combined therapies (REBT+ SC). A 15-item instrument titled the Crystal Methamphetamine Intake Questionnaire (CMIQ) was used for data collection. The instrument was validated by three experts. Cronbach alpha statistic was used to obtain a reliability coefficient value of 0.83. Mean and standard deviation were used to answer the research questions and analysis of covariance (ANCOVA) to test the null hypothesis at a 0.05 level of significance. The result revealed that Rational Emotive Behaviour and Self-Control Therapies were effective in the reduction of Crystal Methamphetamine intake among undergraduate youths. It was recommended that REBT and SCT should be employed by professional counsellors and psychologists in assisting undergraduates in stopping the intake of crystal methamphetamine.

Keywords: Cognitive Behaviour Therapy, Rational Emotive Behaviour Therapy, Self-Control Therapy, Crystal Methamphetamine, and Sustainable Development

Introduction

Education forms the mainstay of every society (United Nations, 2022). The Sustainable Development Goal (SDG) 4 of the United Nations aims to ensure inclusive and equitable quality education and promote lifelong learning as well as the urge to acquire knowledge. It is a major goal towards the transformation of the world by 2030. Following the above, the researchers define quality Education as a type of Education which is designed to provide all-round development to the learners. It lays the foundation for a better society marked with social and economic growth as well as gives credence to sustainable development in any nation. Quality Education aims at ingraining the youths in tertiary

institutions with the required knowledge, skills, values, capabilities, and attitudes necessary for living a more productive life and escaping from poverty.

However, for quality Education and the resultant sustainable development in Nigeria to be effective, there is an urgent need for the undergraduate youths to be physically, mentally, and socially sound, free from crystal Methamphetamine, also referred to as “Crystal Meth” Ice or Mkpuru Mmiri.” According to Sotonade, Adeniji, and Adeniji (2020), there is growing public concern about the involvement of youths in tertiary institutions in drug abuse especially using Crystal Methamphetamine. The intake of this substance by undergraduate youths has become one of the most disturbing health-related phenomena in Nigeria and other parts of the world (Barakat, Shuaib, & Sakirudeen, 2020). The substance poses a significant threat to the social, health, and economic life of Nigerian youth (Giade, 2012). Okoli et al. (2021), stated that the substance which is highly abused by many youths in higher institutions of learning has assumed a notorious dimension and is fast destroying some youths. Lee (2022) pointed out that crystal methamphetamine differs from other substances and is more dangerous than other stimulants because a larger percentage of the drug remains unchanged in the body after its intake. This is why the substance stays in the brain longer, extending the stimulant effects.

The pleasurable effects of Crystal Methamphetamine happen when the body releases very high levels of the neurotransmitter dopamine. This is the brain chemical involved in motivation, pleasure, and motor function. Also, literature revealed that the substance generates an intense “rush” or feeling of bliss in the body once it is taken and the effect can last up to four days. This may be one of the reasons it is highly patronized by tertiary institution youths who are exposed to a high risk of becoming overly reliant on the drug as well as developing a substance use disorder. Similarly, Villines (2022) opines that it can cause significant brain changes such as alterations in the brain’s dopamine system activity associated with reduced motor speed and impaired verbal learning. Furthermore, it may lead to structural and functional changes in the brain associated with emotion and memory, and some of these may be irreversible.

Despite the above facts, the abuse of this substance appears to be a preferred lifestyle of many undergraduate youths in higher institutions. They are easily noticed by their appearance, mode of dressing, and lack of commitment to their academic activities among others.

Nkem (2021) is of the opinion that the substance is highly potent and affects the central nervous systems of the body as well as gingers the victims to deviant activities. Babafemi (2021), a Spokesperson for the National Drug Law Enforcement Agency (NDLEA), revealed that Crystal Methamphetamine is a very addictive stimulant that renders the user hyperactive and prone to destructive tendencies, which at the extreme do not exclude suicide or homicide at the slightest provocation and without a feeling of remorse (Ekpe, 2022). The researchers point out that many of the deviant activities often associated with the youths in tertiary institutions such as bullying, cultism, criminal activities, examination malpractices, sexual assaults, lateness, and absenteeism from lectures among others are due to the influence of Crystal Methamphetamine. Many of such youths usually have carryover courses due to lack of commitment making them stay extra years in the institution while some end up as dropouts. This poses a significant negative impact on the quality of

Education and sustainable development, which can only be attainable with youths who are mentally and morally sound, healthy, focused, committed, and goal-oriented among others.

Buttressing the above facts, in 2021, a 100-level student at the Michael Okpara University of Agriculture, Umudike, had to drop out of school and was taken to a rehabilitation home because his sanity was impaired courtesy of Crystal Methamphetamine intake. It was revealed that he was addicted to the substance right from his senior secondary school days. According to Nwokolo, Obiora, and David (2005), the trend of substance abuse among the youths in tertiary institutions in Nigeria, cannot be divorced from availability. This trend is increasingly being proven true as Crystal Methamphetamine is a common substance in Nigeria especially, in the eastern part of the country. Although the National Drug Law Enforcement Agency (NDLEA), Police Anti-Cult Unit, and other relevant law enforcement agencies often arrest drug dealers and consumers, undergraduate youths who are used to its intake still know how & where to patronize them.

Other push buttons responsible for these youths' intake of the substance may include availability and access to electronic and print media, the need for boldness in order to challenge people and authorities, ignorance of such substances, peer group influence, curiosity to find out about the substance, poor parental upbringing, teachers influence, the feeling of neglect from the family, advertisement from electronic and print media promoting drugs among others.

Oshikoya and Alli (2006), assert that most of these youths become addicted to such substances owing to various daily activities which negatively impact their mental balance. Oshodi, Aina, and Onajole (2010), in their study on the perception of substance abuse amongst Nigerian undergraduate youths, identified dependence and addiction as one of the major consequences of Crystal Methamphetamine characterized by compulsive substance crave-seeking behaviours even in the face of harmful consequences.

Most University students who are addicts to the substance or others developed such negative lifestyles in their secondary school days. Njoku, Odita and Thomas- Ochia (2021), revealed that some mentally deranged youths combined Crystal Methamphetamine with other hard substances, and the worst of it all is that they hardly eat good and enough food but, took the substances as if they were food to be high. Also, Okoli, Ujumadu, Agbo and Oko (2021), affirmed that "it is a common sight to see addicts on the streets of Southeast communities, some of them incoherently walking the streets naked or half naked. You see them, mainly young men in their twenties, murmur to themselves while walking on the streets. Looking haggard and unkempt, they are victims of mkpuru mmiri. They entirely operate on a different level from normal human beings". The researchers affirm that some of the victims of Crystal Methamphetamine became addicts owing to curiosity, desire to feel high and good, relieve academic stress, forget their worries, feel bold, build their self-esteem, overcome emotional, psychological, and physical problems, peer pressure and curiosity. A nationwide survey of high school students reported that 65 per cent wanted to see what it is like, and 20 percent used it to alter their moods, feel good, relax, relieve tension, and overcome boredom, and socio-personal problems bordering them (Abudu, 2008).

Similarly, a study by Onohwosage, Egenegbe, and Blinkhom (2013), revealed that youths in tertiary institutions abuse substances to relieve pains, gain sexual gratification, become

assertive, feel high, and other such reasons. World Health Organization (2016) stated that 22.1 percent of school-aged children, between 12 to 18 years and above abuse substances, which the researchers maintain that Crystal Methamphetamine is among them because it is currently the most trending substance. Crystal Methamphetamine is said to severely affect the brain's structure and its functioning. Additionally, it affects areas of the brain that are linked to emotion and memory, as well as structures associated with judgment. Due to this, it may radically change behaviours and emotions.

This may explain why people who chronically use the drug usually develop emotional and cognitive difficulties. The alarming rate of Crystal Methamphetamine intake among the undergraduate youths in the southeastern part of Nigeria, the effects, and adverse consequences especially as it concerns quality Education and the achievement of sustainable development calls for concern and challenge to all helping professions. It is against this background that the researchers investigate the effect of two cognitive behaviour therapies (rational emotive behaviour therapy and self-control) on the reduction of Crystal Methamphetamine intake among youths in tertiary institutions in Abia State. A review of 106 meta-analyses conducted by Hofmann and colleagues, which assessed the efficacy of Cognitive Behaviour Therapy (CBT) in treating substance abuse; depression, anxiety, personality disorders; aggression, anger, and criminal behaviours revealed overwhelming support for cognitive behaviour therapy as an effective psychotherapeutic treatment option for the conditions (Aghadinazu and Obi, 2022).

Cognitive behavioural therapy

Cognitive behavioural therapy (CBT) which was first developed in the 1960s by a psychiatrist known as Aron T. Beck is a type of talking therapy focused on rationalizing an individual's negative thoughts and behaviours. According to Jaiyeola and Fajonyomi (2020), Cognitive behaviour therapy (CBT) is a set of interventions that share the simple principle that cognitive factors sustain mental disorders and psychological distress. The core premise of this treatment is that maladaptive cognitions contribute to the state of emotional distress and behavioural challenges. Also, Osita and Toyin (2022), assert that CBT is a therapy for managing maladaptive behaviours. In line with the above, the researchers opine that some youth take Crystal Methamphetamine due to cognitive biases they form towards themselves and society. The happenings and economic situation to which individuals are subjected expose many youths to maladaptive coping like Crystal Methamphetamine abuse in a bid to release anxiety and stress, but unfortunately, it impacts negatively on them as well as hinders quality Education and sustainable development. Thus, the goal of the therapy is to restructure the thinking patterns of individuals such that they will learn new positive behaviours as well as manage problems by recognizing how their thoughts affect their feelings and behaviour. Following the above, CBT is seen as an appropriate therapy towards assisting undergraduate youths who are addicted to Crystal Methamphetamine consumption to restructure their thinking patterns on their reasons for such lifestyle and the negative impact it has on quality Education and sustainable development hence the use of two CBT theories Rational Emotive Behaviour Therapy and Self- control for this study.

Rational Emotive Behaviour Therapy (REBT)

Rational Emotive Behaviour Therapy (REBT), previously referred to as rational therapy, is an active-directive, philosophically and empirically based psychotherapy, the aim is to resolve emotional and behavioural disturbances (wikipedia, 2011). This cognitively oriented counselling therapy was propounded by Albert Ellis in 1957. REBT strives to assist individuals (youths) to feel better by making major philosophic reconstructions in their lifestyles, and lead happier, and more fulfilling lives after therapy has ended, enables them to use REBT formulation (ABCDE) principle for the rest of their lives (Okeke in Aghadinazu, Uchendu and Ajoku, 2017). A study by Kurniawati (2019), on the implementation of REBT for drug addicts concludes that REBT approach to drug addicts plays a role in increasing the ability to control emotions such as anxiety and aggression, the ability to eliminate negative thoughts and self-destructive behaviour, as well as changes in irrational thought support, with limited behaviour change which is an implication that REBT therapy, is effective for clients or counselees who experience drug addiction problems. Clinically, the outcome studies have shown that REBT therapy is efficacious to substance abuse (Terjese, Raymond, and Gruner, 2000). Megan (2022) asserts that REBT holds the potential to enhance substance abuse treatment alongside other therapies and modalities.

Similarly, Egbule and Odofin (2022), conducted a study on the effect of Rational Emotive Behaviour Therapy on the management of suicidal thoughts among students in Delta State University, Abraka. The findings of the study revealed that REBT is effective in managing suicidal thoughts which have a link with crystal meth intake. Also, the study by Austine and Aluede (2017), on the effectiveness of Rational Emotive Behaviour Therapy in the reduction of examination anxiety among the youths in Edo State, Nigeria, revealed that REBT treatment approach was a success in reducing examination anxiety of the students. Putwain, Connors & Symes (2010) explained that one of the most effective ways to reduce anxiety disorders may be through cognitive behavioural therapy. The use of this therapy (REBT), therefore, is vital for the youths who believe that crystal meth intake is the solution to their stressful life events and frustrations. Using the therapy, the counsellor redirects their irrational thoughts and behaviour to a more realistic and philosophic one which is taking a firm decision to do away with crystal meth intake geared toward sustainable development.

Self-Control Therapy

Self-control therapy is a cognitive and behavioural skill used by clients to maintain self-motivation and achieve personal goals. The individual is the principal agent in guiding, directing and regulating those aspects of his behaviour that require modification. Self-control therapy involves self-monitoring, self-evaluation, goal setting, behaviour contract, self-reinforcement and relapse prevention, reinforcement. According to Duckworth & Steinberg (2015), it refers to an individual's ability to control his/ her current desire to achieve more valued long-term goals. To buttress the above assertions, a study on the status of self-control and its effect relation to drug abuse-related behaviours among Iranian male high school students was carried out by Allahverdipour, Hidarnia, Kazamnegad and Shafii (2006) with 183 male high and found a significant inverse relationship, between poor self-control, intentions, and attitudes towards drug abuse. Adolescents with poor self-control are vulnerable to substance abuse and social self-control training skills are essential in

substance abuse prevention programs. Another study which was reported by Mensch (2011) on the impact of self-control on marijuana smoking and academic achievement revealed a significant relationship among the variables. Also, a study carried out by Ikechukwu, Siti, Mansor, Rohani, and Skineh (2013), on the role of self-control in the reduction of substance abuse among the youths in Nigeria showed that self-control played a significant role in the diminution of substance abuse among the adolescents. Another study which was conducted by Hoffmann (2022), on self-control, peers, and adolescent substance use showed that self-control affects substance use among adolescents and can attenuate the influence of peer influence of peer substance use. The researchers, therefore, opine that through self-control therapy the youths will learn the ability to resist and overcome the desire for immediate gratification. Hence, be able to stop damaging habits such as the intake of Crystal Methamphetamine and form new ones necessary for sustainable development.

Statement of the Problem

The abuse of Crystal Methamphetamine is seen in all parts of Nigeria. However, in Igbo communities, it assumed a notorious dimension. Undergraduate youths' involvement in crystal methamphetamine and the subsequent maladaptive behaviour they exhibit under its influence poses a challenge to all stakeholders in Education. The use of crystal methamphetamine by these youths has taken away some students' focus on their studies as they are hyperactive, pay less attention to their academics, and sleep when they are supposed to be in the classrooms among others. All these impacts negatively on quality Education and sustainable development.

Many studies have been carried out on the effect of Cognitive Behaviour Therapy (CBT) on substance abuse among youths. However, none has addressed the effect of Rational Emotive Behaviour and Self - Control Therapies for the reduction of crystal methamphetamine intake among undergraduate youths in Abia State for quality Education and sustainable development which is the gap this present study attempts to fill, by exploring the efficacy of the two therapies (REBT and SCT) on the reduction of crystal methamphetamine intake among undergraduate youths in Abia State, Nigeria. Thus, the problem of the study is to investigate the effect of Rational Emotive Behaviour and Self – Self-control therapies on the reduction of Crystal Methamphetamine intake among undergraduate youths in Abia State.

The following research questions guided the study.

- i) What is the difference between the post-test mean scores on Crystal Methamphetamine intake reduction among undergraduate youths exposed to Rational Emotive Behaviour Therapy (REBT) and the (C) Control?
- ii) What is the difference in the post-test mean scores rate on the Crystal Methamphetamine intake reduction of undergraduate youths exposed to both therapies Rational Emotive Behaviour Therapy and Self-Control (REBT + SCT) and the Control.

Hypothesis

H0₁: There is no significant difference between the post-test mean scores on Crystal Methamphetamine intake reduction among undergraduate youths exposed to Rational Emotive Behaviour Therapy and Self- Control (REBT + SCT) and the Control.

Methodology

The design for this study was quasi experimental design of pre-test, post-test and control group using 3 x 2 factorial matrix. This design is suited for this study because the researchers had no control over the outcome variable which could not be manipulated.

Table 1.1: Pre-test – post-test control design

S/N	GROUP	PRE-TEST	TREATMENT	POST-TEST
1.	REBT , SCT	01	X	02
	REBT +SCTcombined	01	X	02
2.	Control	01	-	02

The population consisted of all the undergraduate youths in Abia State. Purposive sampling technique was used to sample the subjects who were identified by the Guidance Counsellors who work in the school counselling clinic (Michael Okpara University of Agriculture Umudike, Abia State). 30 sample size was drawn and the first 15 became the treatment group while the last 15 became the control group. Only two groups were involved (treatment and control). The responses of the control group were used as covariance to the responses of those in the treatment group.

A 15 - item researchers developed instrument titled Crystal Methamphetamine Intake Questionnaire (CMIQ) was used to collect data during both pre-test and post-test phases though, the items were reshuffled during posttest. Section A contained demographic data of the subjects while section B contained 15 self-report items in relation to crystal methamphetamine intake. The items were on a 4- point rating scale of Strongly Agree= 4, Agree= 3, Disagree=2, Strongly Disagree=1. A criterion means of 2.5 was established to determine acceptance or rejection of Crystal Methamphetamine intake. Any mean from 2.5 and above shows acceptance while mean score below 2.5 shows rejection.

The initial draft of the instrument was face validated by two research experts in the fields of Guidance and Counselling and one from Measurement and Evaluation Departments of Michael Okpara University of Agriculture, Umudike, Abia State. They criticized the instrument with respect to the response formats, pattern of questions and number of items. Their criticisms were taken and corrections effected to produce the final version of the instrument. The instrument was subjected to reliability analysis using test re-test method in which ten copies of the instrument were administered to undergraduate youths from Abia State university which was not part of the study on two occasions of two weeks interval, (after an interval of 2 weeks, a re-test was administered to the same set of undergraduate youths). Cronbach alpha statistic was used to test for the internal consistency reliability of the instrument. Thus, a reliability coefficient value of 0.83 was obtained showing that the instrument was reliable for the study. Data were collected in two phases of the experiment

namely, pre-test and post-test phases. The data collected were analyzed using Mean and Standard Deviation to answer the research questions and analysis of covariance (ANCOVA) to test the null hypothesis at 0.05 level of significance.

The treatment procedure is as follows.

Stage 1: Pre-test evaluation

The researchers administered the instrument to all the participants in both groups as a pre-test evaluation. This pre-test was the initial step in the pre-treatment evaluation. The aim was to determine the respondents' levels of involvement in Crystal Methamphetamine intake while obtaining their pre-test scores. The information obtained was used to create a baseline proforma for evaluating the post-test results. Thereafter, the treatment was administered, followed by the post-test evaluation.

Stage two: Treatment

This is the experimental stage. It began a week after the pre-test evaluation. The subjects were sensitized and motivated for the treatments. At this stage, the subjects were exposed to the two treatment packages (REBT and SCT) at different sessions. The first treatment REBT was a counselling presentation on ABCDE principles of Cognitive Emotive Behaviour Therapy (REBT) broken down into more meaningful discussions by the researchers. The focus was on the negative effects of Crystal Methamphetamine in the lives of the subjects. Redirecting their irrational thoughts and behaviour (Crystal Methamphetamine intake) to a more realistic one (decision to say no to Crystal Methamphetamine intake). Self- Control Therapy (SCT) they were exposed to include self-monitoring, self-evaluation, goal setting, behaviour contract, self-reinforcement, relapse prevention and reinforcement. These self-control techniques will help the subjects to resist and overcome the desire, behaviour, persons, or things likely to make them have urge for Crystal Methamphetamine intake.

The control group was a waitlist group, was not subjected to any treatment package but received only pre-test and post-test. The treatment lasted for six (6) weeks, two classes each week, each lasting 60 minutes.

Stage three: Post-test Evaluation

At the end of the treatment, the treatment group with the control was post-tested. This was done by administering the same instrument: Crystal Methamphetamine Intake Questionnaire (CMIQ) on the two groups (treatment and control) to determine if any changes can be connected to the treatment. The results obtained were compared at the end of the procedure.

Note: Crystal Methamphetamine Intake Questionnaire (CMIQ) was administered to the two groups (treatment and control) at both pre-test and posttest. The responses of the control group were used as covariance to the responses of the treatment group. The treatment group received REBT and SCT while the control group was not exposed to any treatment.

Results

Research Question 1:

What is the difference between the post-test mean scores on Crystal Methamphetamine intake reduction among undergraduate youths exposed to cognitive behaviour therapy and the control?

Table 3.1: Mean and Standard Deviation between the post-test mean scores on Crystal Methamphetamine intake reduction among undergraduate youths exposed to rational emotive behaviour therapy and the control

		Pre-test		Post-test		Mean Reduction	Mean Reduction difference
Groups	N	X	SD	X	SD		
REBT	10	40.23	3.75	28.11	3.84	12.12	10.23
Control	10	40.45	3.88	38.56	3.91	1.89	

Result in Table 3.1 above revealed the mean scores on crystal meth intake reduction among undergraduate youths exposed to cognitive behaviour therapy (treatment group) and the control. The treatment group had mean crystal meth intake reduction score of 40.23 with a standard deviation of 3.75 at pre-test and 28.11 with standard deviation of 3.84 at post-test. The mean crystal meth intake reduction score of those exposed to REBT was 12.12 while those in control C had 40.45 with standard deviation of 3.88 at pre-test and 38.56 with standard deviation of 3.91 at post-test. The mean scores on crystal meth intake reduction score of those exposed to the control group was 1.89. A mean reduction of 10.23 was recorded for the two groups. The standard deviation of each group ranged from 3.75 – 3.91; an indication that the respondents were not too far from the mean and from one another in their response. Thus, the results showed that the use of rational emotive behaviour therapy reduced crystal meth intake among undergraduate youths exposed to the therapy.

Research question 2:

What is the difference in the post-test mean scores on Crystal Methamphetamine intake reduction among undergraduate youths exposed to REBT + SCT and the control?

Table 3.2: Mean and Standard deviation of crystal meth intake reduction among undergraduate students exposed to rational emotive behaviour and self-control therapies REBT + SCT and the control.

		Pre-test		Post-test		Mean Reduction	Mean Reduction Difference
Groups	N	X	SD	X	SD		
REBT + SCT	10	41.31	3.24	28.08	3.33	13.23	11.34
Control	10	40.45	3.88	38.56	3.91	1.89	

Data in Table 3.2 shows that undergraduate youths crystal meth reduction but exposed to rational emotive behaviour and self-control therapies (REBT + SCT) had pre-test mean score of 41.31 with standard deviation of 3.24 and a post-test mean score of 28.08 with standard deviation of 3.33. Similarly, those exposed to the control group recorded pre-test mean score of 40.45 with standard deviation of 3.88 and a post-test of 38.56 with standard deviation of 3.91. Furthermore, the table revealed that those exposed to REBT and SCT had mean reduction difference of 13.23 while their counterparts in the control group had 1.89. The mean reduction difference, between the REBT + SCT and the control group is 11.34 which indicates that the undergraduate youths exposed to REBT and SCT had higher mean crystal meth reduction scores than their counterparts in the control group. The standard deviation of the two groups ranged between 3.24 -3.91 showing that respondents were not too far from the mean and responses of one another. Thus, this is an indication that the use of REBT and SCT reduced crystal meth intake among undergraduate youths.

Hypothesis 1: There is no significant difference between the posttest mean scores on Crystal Methamphetamine intake reduction among undergraduate youths exposed to REBT and SCT (REBT + SCT) and Control.

Table 3.3: Analysis of Covariance (ANCOVA) on Crystal Methamphetamine intake reduction of undergraduate youths exposed to REBT and SCT and the Control group.

Source	Type III sum of squares	Df	Mean Squares	F	Sig.
Corrected Model	7778.422	1	5361.536	23.113	.000
Intercept	5361.536	1	3149.339	13.576	.001
Pretest group	3149.339	1	4462.034	19.235	.008
Error	4462.034	18	231.970		
Total	4175.453	20			
Corrected total	78934.000	19			
	13953.875				

Results in Table 3.3 above showed that probability values (p-value) of .008 were obtained. Since the P- value obtained is less than the alpha value of 0.05, the hypothesis of no significant effect was rejected and the alternate accepted. Therefore, there is a significant difference between the posttest mean scores on Crystal Methamphetamine intake reduction among undergraduate youths exposed to REBT and SCT and the control. This implies that exposing undergraduate youths with Crystal Methamphetamine intake behaviour to Rational Emotive Behaviour Therapy and Self- Control Techniques significantly reduced Crystal Methamphetamine intake behaviour among undergraduate youths.

Discussion of Results

The findings of the study in research question one and the corresponding hypothesis revealed that REBT was effective in the reduction of crystal meth intake undergraduate youths exposed to it. This is evident from the result which showed that the undergraduate youths exposed to REBT had higher mean reduction than those exposed to control. The result aligns with Kurniawati (2019) who examined the effect REBT on drug addicts. The result concludes that REBT approach to drug addicts plays a role in increasing the ability to control emotions such as anxiety and aggression, the ability to eliminate negative thoughts and self-destructive behaviour, as well as changes in irrational thought support, with limited behaviour change which is an implication that REBT therapy, is effective for clients or counselees who experience drug addiction problems of which crystal meth is among. Similarly, Terjese, Raymond and Gruner (2000), reported that clinically, the outcome studies have shown that REBT therapy is efficacious to substance abuse. The findings is equally supported by the findings of Austine & Aluede (2017), on the effectiveness of rational emotive behaviour therapy in the reduction of examination anxiety among secondary school students in Edo State which revealed that REBT was a success in reducing examination anxiety of the students.

The result also showed that the use of REBT and SCT reduced crystal meth intake among the undergraduate youths who were exposed to it. The results corroborated with Titilope (2012), on the efficacy of REBT and reality therapies (RT) in reducing suicidal thoughts and phobia among students in Ilorin, Delta state which revealed that both were efficacious in reducing suicidal thoughts and phobia among the respondents. The researchers affirm that the above findings correlate because, crystal meth intake is substance abuse which is cognitive oriented in nature like suicidal thoughts and phobia. Also, the therapies used in the studies above are cognitive behavioural therapies (CBT). Similarly, a review of 106 meta-analyses conducted by Hofmann and colleagues which assessed the efficacy of CBT in treating substance abuse; depression, anxiety, personality disorders; aggression, anger and criminal behaviours revealed an overwhelming support for cognitive behaviour therapy as an effective psychotherapeutic treatment option for the conditions (Aghadinazu and Obi, 2022).

Conclusion and Recommendations

That Rational Emotive Behaviour (REBT) and Self-Control (SCT) Therapies which are Cognitive Behaviour Therapies (CBT) are effective in the reduction of crystal methamphetamine intake among the undergraduate youths in Abia state. The study recommended that:

- Rational emotive behaviour and self-control therapies should be employed by professional counselors and psychologists in assisting undergraduate youths to stop the intake of crystal meth.
- Functional counseling centers as a matter of urgency should be established in Michael Okpara University of Agriculture, Umudike and other tertiary institutions in Abia state.

References

- Abudu, R. V. (2008). Young people and drug abuse. Biennial International conference on alcohol, drugs and society in Africa. Abuja, Nigeria between 23rd-25th July 2008.
- Aghadinazu, R. E. and Obi, O. P. (2022). Efficacy of cognitive behaviour therapy in restructuring the mindset of in-school adolescents for self-development and improved psychological well-being. *Journal of Professional Counseling (JPC)*; 5(1): 2645-2308.
- Aghadinazu, R.E., Uchendu, I. A. and Ajoku, M. U. (2017). Counseling strategies for value re-orientation and youth empowerment through entrepreneurship skills for improved family living in global community. *Nigeria Journal of Home Economics (NIG.JHEC)*, 6(1): 297-306.
- Allahverdipour, H., Hidarnia, A., Kazamnegad, A. and Shafii, F. (2006). The Status of self-control and its relation to drug abuse related behaviours among Iranian male high school students. *Social Behaviour and Personality and International Journal* 34 (4):413-424; doi:10.2224/sbp.2006.34.4.413.
- Austine, G. E., & Aluede, O. O., (2017), Effectiveness of rational emotive behaviour therapy in the reduction of examination Anxiety among secondary school students in Edo State, Nigeria. Pages 61-76 | Received 30 Jun 2017, Accepted 29 November 2017, Published online: 07 Dec2017<https://doi.org/10.1080/21507686.2017.1412329>.
- Babafemi, F. (2021). HOW Mexican Drug Cartel brought Mkpuru Mmiri to Nigeria. <https://guardian.ng/news/how....November>
- Barakat, I., Shuaib, M., and Sakirudeen (2020). Curbing the menace of drug: implications on mental health of youths in tertiary institution. *Journal of Professional Counseling (JPC)*; 3(1); ISSN; 2645-2308
- Brazier, Y. and Villines, Z (2022). Everything you need to know about crystal meth.
- Duckworth, A & Steinberg, I. (2015). unpacking self-control. *Child Development Perspectives*. doi:10.1111/cdep.12107s.
- Egbule, E. O and Odofin, T. (2022). Effect of rational emotive behaviour therapy on the management of suicidal thoughts among students in Delta State University, Abraka, Nigeria. *Journal of Professional Counseling (JPC)*; vol 5, no 1; ISSN; 2645-2308.
- Ekpe, M. E. (2022). From mkpuru mmiri to akuskura. This Day, www.thisdaylive.com 8th Sept, 2022.
- Giade, A. (2012). How Nigeria's latest drug abuse defies legislation.daily trust newspaper. Retrieved from <http://www.dailytrust.com.ng/daily/old>.
- Hoffmann, J. P. (2022). Self-control, peers, and adolescent substance use: an International analysis. Received 05 July 2022, accepted 13 November 2022, published online:21 November 2022. <https://doi.org/10.1080/14659891.2022.2148581>

- Ibrahim, M. and Buhari, (2020). Curbing the menace of drug abuse: implications on mental health of youths in tertiary institutions. *Journal of Professional Counseling (JPC)*; vol 3, no 1; ISSN; 2645-2308.
- Ikechukwu, U., Siti, N. Y., Mansor, A, T., Sakineh, M. & Rohani, A. (2013). Effect of self-esteem in the relationship between stress and substance abuse among adolescents: a mediation outcome. *International Journal of Social Science and Humanity*, 3(3): 214-217.
- Jaiyeola, B. O. & Fajonyomi, M. G. (2020). Cognitive behavioural therapy as strategy for coping with postpartum depression among nursing mothers in Nigeria. *Journal of Professional Counseling (JPC)*; vol 3,1; ISSN;2645-2308.
- Kurniawati D, A., (2019). Implementation of REBT for drug addicts: meta-analysis. Atlantis press. Advances in social science, Education and humanities research, volume 462. Proceedings of the 2nd International seminar on guidance and counseling2019 (ISGC 2019).
- Lee, W. (2022). Crystal Meth: What You Should Know. Medically Reviewed by Dany Paul Baby, MD on April 19, 2022.
- Megan, B., (2022). Rational emotive behaviour therapy (REBT) for substance abuse near me. American addiction centers. Updated oct 21, 2022.
- Mensch, F. Y. (2011). Relationship b/w students' entry grade and academic achievement at kwara state college of Education, Ilorin. *Journal of Education*, vol 8.
- National Drug Law Enforcement Agency (2014). Press release on world drug report. Retrieved May, 2019 from <http://www.nglea.gov.ng>.
- NDLEA (2012). National law enforcement agency statistical report.
- Njoku, I., Odita, S. & Thomas-Odia (2021). How Mexican drug cartel brought mkpuru mmiri to Nigeria. *The Guardian*; November 20th 2021. [Guardian ng>news](https://www.guardianng.com/news)
- Nkem, E. (2021). What we need to know about 'Mkpuru Mmiri'/Methamphetamine. *Punch*, 9th Dec, 2021; punching.com.
- Nwokolo, A. E, Obiora, A.E. & David, A. A. (2005). Staying drug-free in our schools. A handbook on Abuse; Education sector, Nigeria.
- Okoli, Ujumadu, Agbo & Oko (2021). How mkpuru mmiri is destroying and killing Igbo youths. *Vanguard*, November 24, 2021. www.vanguardngr.com.
- Olufumilayo, A. T., Sotonade, A. & Adeniji, R (2020). Influence of drug and emotional adjustment on academic engagement of tertiary institutions' students in Ogun state, Nigeria. *Journal of Professional Counseling (JPC)*; vol 3, no 1; ISSN; 2645-2308.
- Onohwosage, P. S., Egenegbe, A. & Blinkhom, A. S. (2013). Drug use among secondary school children in central delta state, Nigeria. *International Journal of Health Promotion and Education*, 46(1), 33-34.

- Oshikoya, A. A. & Alli, D. (2006). Perception of drug abuse among Nigerian undergraduates. *World Journal of Medical Science*, 7 (2), 180-185.
- Oshodi, O. Y., Aina, O. F. & Onajole, A. T. (2010). Substance use among secondary school students in an urban setting in Nigeria: prevalence and associated related factors. *African Journal of Psychiatry*, 13(1), 52-57.
- [Osita, E. E. & Toyin, O. \(2022\). Effect of rational emotive behaviour therapy on the management of suicidal thoughts among students in delta state University, Abraka, Nigeria. *Journal of Professional Counseling \(JPC\)*; vol 5, no 1, ISSN: 2645-2308.](#)
- Putwain, D., Connors, J. & Symes, W. (2010). Do cognitive distortions mediate the text anxiety-exam performance relationship? Jan 2010. *Educational psychology*, 30 (1) 11.
- Terjesen, M., Raymond, A., Digiuseppe, T. & Grunner, P. (2000). A review of REBT research in alcohol abuse treatment. September 2000. *Journal of rational emotive and cognitive behaviour therapy*. 18(3):165-179;doi:10.1023/a:1007878921028.
- United Nations (2022). Global SDG Indicators Database. Retrieved from <https://www.un.org/sustainabledevelopment/education/> on 16 March, 2023.
- Villines, Z. (2022). Drug- induced Schizophrenia: causes, symptoms, and treatment. *Medical newstoday.com*. <https://www.medicalnewstoday.com>. Updated on February 10, 2023.
- WHO (2016). Health topic substance abuse. <http://www.who.int/topics/substance>.
- Wikipedia (2011). Rational emotive behaviour therapy. Rational emotive behaviour therapy. July, 2011
- World Health Organization (2016). Definition of Health. Retrieved from [www.who.int/about/definition /print html](http://www.who.int/about/definition/print.html). 18th April, 2019.

USE OF DEVELOPMENTAL CHECKLIST IN TEACHING AND LEARNING AT EARLY CHILDHOOD DEVELOPMENT LEVEL IN MAUN BOTSWANA

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Abstract

Children's assessment needs considerably selected formal and informal methodologies that measure specific features over several selected periods of time and in many different settings. The focus of the paper was to establish opportunities and challenges in the employment of the developmental checklist on how assessment can promote development and learning at the Early Childhood Development (ECD) level (3-5 years). The study applied Bronfenbrenner's (1979, 1995) ecological model in an attempt to gain an improved understanding of the interaction between factors in children's biological, their immediate family/community environment and societal landscapes that stimulate and guide their development. A qualitative research approach and a case study design guided the process of this study. Interviews, observation, and document analysis were the tools used to collect data. Five Early Childhood Development (ECD) centres in Maun were randomly selected to be part of this study. Collected data were qualitatively presented, analyzed and interpreted for the purposes of making informed decisions. Findings established that opportunities for assessment using the developmental checklist focus mainly on growth and development, rather than meeting predestined criteria or score that labels the learner as competent or incompetent. Also revealed by the study is that most educators focus on the result rather than the process and that, a lack of intervention strategies based on observation can deter progress. From the findings, it can be concluded that the use of a developmental checklist tool promotes learning and development in young children. The study, therefore, recommends that appropriate use of a developmental checklist in a well-prepared environment can cater for individual differences while at the same time promoting learning

Keywords: Developmental checklist, ECD, Teaching and learning.

Background to the study

Assessment of young children is one of the critical elements in their development (Brewer, 2007). Current assessment tools reveal that young children develop steadily at different rates as per their individual growth and development (Leonard, 1997). The Early Childhood Development programme is designed to form the foundation for education and development of children. Thus, the foundation provides teachers and children with an opportunity to develop and build on the skills necessary for growth. Such windows of opportunity place the teacher or caregiver in the right direction towards assessment of young children as they grow and develop. This research paper, therefore, was targeted at exploring opportunities and challenges in the use of the developmental checklist in teaching and learning at the ECD level.

Worldwide young children are the future of every nation. Bernard van Leer Foundation (2004:3) posit that “what happens to children in their first days, months and years of life affects their development, the development of the society and of the world. A lot of attention has been channelled to the field of ECD, hence the augmented attention it has received in recent years, globally, urbanization, changing economic circumstances, migration and adjustments to the family structure have resulted in greater acknowledgement of formal early childhood care and education as a realistic alternative to home-based caregiving” (Are, 2007; Bowes, Watson and Pearson, 2008, in Pearson and Degotardi, 2000:99).

Research studies conclude that ECD has the potential to promote change and enhance the lives of communities on a global scale. The Organization for African Unity (2001:6) concurs that “the future of Africa lies with the well-being of its children and youth”. This organization furthermore acknowledges that socio-economic transformation and growth rest with investment in the young people of the continent. “Today’s investment in children is tomorrow’s peace, stability, security, democracy, and sustainable development” (Pan-African Forum for Children, 2001). In the same view, Aidoo (2008) upholds that, ECD is the foundation of human development whereby a focus on the young child and the whole ECD provides an opportunity for sustainable human development, economic growth, social change, and transformation in Africa.

Universal provision of formal early childhood services has also been promoted via international organizations that view the early years as formative in terms of later development and learning (United Nations Educational, Scientific and Cultural Organization (UNESCO), 1990). These developments have stimulated global interest in the provision of early childhood services and, in particular, the goal of achieving positive outcomes for young children. In support, Kaga (2007) agrees that education equips children with values and basic skills that allow them to critically reflect and make informed decisions about issues and courses of action. Kaga further says that by equipping young children with important life and learning skills, ECD has the potential to promote change and enhance the lives of communities on a global scale.

Schoeman (2005:275) additionally, accredits a specific responsibility to ECD programmes whilst maintaining that they bear a special and historic responsibility for the development of civic competency and responsibility. Aidoo (2008) agrees when asserting that countries need to develop ECE policies that will guide strategic decision-making and resource allocation.

Assessment of children in the early years is a vital and growing component of high-quality early childhood programmes. It is not only an imperative instrument in understanding and supporting young children’s development, but also very essential to document and weighing programme efficiency (Brewer, 2007). For effectiveness purposes, assessment must employ methods that are realistic, viable and balanced with regard to demands on budgets, educators, parents, and children. (Helm, Banneker & Steinheimer 1998). Furthermore, it is of crucial importance that assessment at this stage meets the challenging

demands of accuracy and effectiveness, the tools used have to measure what they are intended to measure, for the benefit of the developing child. Talking with families about developmental aspects, sharing their children's work samples, and differentiating between performance and progress are some ways to ensure that families are given an accurate picture on the value and purpose of assessment in support of learning and development (Marcon and Rebecca, 1999).

Assessment according to Airasian (2002:35) "is the process of collecting, synthesizing, and interpreting information to aid classroom decision-making. Helm, Beneke and Steinheimer (1977) endorse it by including information gathered about learners, instruction, and classroom climate. Assessment is therefore, a great way to map the child's growth over a period of time, provide feedback to the parents, or assist with classroom management and discipline. However, interestingly, this is contrary to Salvia and Ysseldyke's (1995) opinion that, more often, than not "we choose to engage in assessment because disruptive or dangerous behaviour or because we see "normal behaviour exhibited in inappropriate contexts". Parents can be easily misled about the developmental progress of their children when assessment practices are not sufficiently comprehensive to include well-designed observation and performance/progress-based assessment.

Effective assessment uses a variety of tools, including collections of children's work (drawings, paintings, and writing) and records of conversations and interviews with children (Helm et al 1998). The core of assessment is daily observation. Watching children's ongoing life in the classroom enables teachers to capture children's performance in real activities rather than those contrived to isolate specific skills (Katz 1984). Research has shown that quality assessment during early childhood is beneficial to children's growth and development throughout life and if competently carried out, it will ensure that children grow up with the necessary skills and capabilities to cope with the expectations of childhood and later adulthood (Samuels, Bophela and Seleti, 2009:40). However, this is subject to the condition that assessment tools used are appropriate for the benefit of the child's growing and learning. Use of homogeneous assessment tools on ECD children may leave them at risk of being misdiagnosed and assigned to inappropriate and ineffective interventions or remediation when assessment is limited to group score comparisons (Weinberg, 1987) A clear understanding of functioning assessment is very essential for the total development and learning of ECD children. The research today has tended to focus on standardized assessment rather than capturing children's growth and developmental needs in the early years (Katz, 1988). The current study contributes to our knowledge by addressing the important issue in assessment tools that promote learning and development at ECD, their challenges and opportunities

Research Questions

The study is expected to answer the following questions

How do teachers/caregivers view the use of the developmental checklist as an assessment tool?

Why is the use of the development checklist in teaching and learning of young children important?

How can ECD teachers/caregivers mitigate the challenges of using the development checklist?

Theoretical Framework

The study is positioned in Bronfenbrenner's Ecological Theory which recognizes an individual's development within the framework of the system of relationships that constitutes his environment (Paquette and Ryan, 2001). Allen (2010:3) references that Bronfenbrenner's ecological systems theory is based on the argument that " ...all individuals at the centre and move out from the centre to include all systems that affect the individual". Therefore, an individual does not operate in a vacuum but is shaped by sounding circumstances, events, and timeframes which link with the framework of Bronfenbrenner (1995) which indicates that human development is the product of an interaction among process, person, context, and time. Additionally, the ecological approach to human development (Bronfenbrenner, 1979, 1986) explores the interaction between an individual and the social-physical environment. This approach is based on the belief that "... human development is the process through which the growing person acquires a more extensive, differentiated and valid conception of the ecological environment, and becomes motivated and able to engage in activities that reveal the properties of, sustain, or restructure that environment at levels of similar or greater complexity in the form and content" (Bronfenbrenner, 1979:29). Furthermore, Bronfenbrenner (1994:40) infers that Bronfenbrenner theory is an attractive one because it is expansive yet focused, one eye is trained on the complex layers of entire, family and community relationships, and the other eye is sharply focused on the individual".

According to Berk (2000), the mesosystem is the layer that provides the connection between the structures of the individual's microsystem, which may include the relation of family experiences to educational experiences, religious experiences, and family experiences to peer experiences. (Paquette & Ryan, 2001:2). In the context of this study, parents are expected to be the source of assessment information, as well as an audience for assessment. Due to the delicateness of direct measures of young children, assessments should include multiple sources of substantiation, especially reports from parents and teachers. Assessment results should be shared with parents as part of an ongoing process that involves parents in their child's education (Paquette & Ryan, 2001). Families always want to know how their child is doing in school and will always appreciate specific examples of the child's progress. Showing examples from the child's work over a period of time enables parents to personally assess the growth and progress of their child.

According to Santrok (2002), the exosystem is involved when experienced in another social setting in which the individual does not have an active role, however, influences what the individual experiences in an immediate context. Therefore, the exosystem defines the larger social system in which the individual does not function directly.

The macrosystem is an outmost layer in the individual's environment and involves the culture in which individuals live (Santrok, 2002:42). The macro system in Bronfenbrenner's ecological theory involves the culture in which individuals live, which refers to the behaviour patterns, beliefs, and all other products of a group of people that are passed on from generation to generation (Santrock, 2002:43). Young children from

different cultures and linguistic background have varied experiences and styles of learning. When planning assessment, interpreting and reporting results to others these factors need to be carefully considered. Some children will be further along the literacy continuum than others who may need more time, more one-to-one instruction, and more practice (Paquette and Ryan, 2001). At the same time, it is important to ensure that all children gain similar standards of learning and performance.

According to Bronfenbrenner (1994), a chronosystem encompasses developmental timeframes over the life course of an individual in family structure, socio-economic status, employment, place of residence or the degree of pressured ability in everyday life. The outer system according to Paquette and Ryan (2000) encompasses the dimension of time as it relates to an individual's environment. It involves the patterning of environmental events and transitions over the life course as well as socio-historical circumstances (Santrock, 2002:42).

Sample and its description

The targeted population for this sample was the Early Childhood teachers, ECD Administrators and Early Childhood children aged (3-5) from Maun in Botswana. The estimated total population for the study was thirty (30) participants. Purposive sampling was employed to come up with the sample. The main goal of purposive sampling was to focus on particular characteristics of a population that are of interest, which will best enable the researchers to answer questions (Patton, 2002). Five centres were selected based on their having similar characteristics because such characteristics were of particular interest to the researchers.

Research design

A qualitative research approach and a case study were adopted for the study. Data were collected using face-to-face interviews, observation, and document analysis. Creswell (2008) defines qualitative research as an investigation procedure of understanding the different systematic habits of inquiry that explore a social situation or human problem. From the qualitative approach, the researchers adopted the case study design that is seen by Babbie (2008); Okeke (2010); Creswell, 2014) as “a research method that relies upon observation for the acquisition of data”. The decision to embark on the case study was further influenced by the fact that the original data was collected from a population large enough to be described directly.

Data collection methods

The following method will be used to collect data for this paper.

Interviews

Boyce (2006) stipulates that interviews can be defined as a qualitative research technique which involves conducting interviews with a small number of respondents to explore their perspectives on a particular programme or situation. Newman (2000) says that an interview is a face-to-face discussion. Thus, an interview is a dialogue where questions are asked, and answers are given in a face-to-face interaction. Pruitt and Rugely (2009) describe that, an interview as an interaction between the researcher and the interviewee. Interviews are important in research because they allow the researchers to insight and context into the

topic as the interviewer gets firsthand information from the interviewee. It also allows interviewees to express themselves in their mother tongue to emphasize certain points. This enables the researcher to be able to watch the actions and feelings of the respondents during the conversation. Therefore, the interview in this study was intended to question the ECD administrators on the use of the developmental checklist in teaching and learning at the ECD level in their respective centres.

Observation

According to Thompson (1996), observation is a power of perception. Therefore, an observation gives guidelines as to how an assessment should be conducted. Bandura (1996) mentions that the observation method is the learning that occurs through observing simple, happenings focusing on the phenomena and describing what can be seen and recorded. This implies that observation methods are through what one sees and comes up with pictures of a given situation. When using the observation method, the researcher can record exactly what is happening at a particular time. It has been noted that some participants, for example, young children are not able to give verbal responses or reports, therefore, observing is the best. This is supported by Feeney, Christensen and Moravick (2001) who mention that observation is the most appropriate method in studying young children. The observation method allows further analysis or comparisons from time to time. It is through observation that the teacher or caregivers think and employ appropriate strategies to help the learners.

Document analysis

Ribson (2002) mention that document analysis is the systematic exploration of written documents or other artefacts such as films, videos and photographs. Document analysis is a measurement that has been collected giving information that would be difficult to get in any other way. It directs the researcher when conducting the research and is relatively low-cost, particularly when documents are easily accessible. Also, many documents are of good quality and some are detailed. On the other hand, analyzing documents can be time-consuming and it depends on the role of the researcher. In this study completed developmental checklists were randomly selected and analyzed

Data Presentation

Interview

Regarding their views on the developmental checklist

Teachers responded by saying they use the checklist for monitoring the children's development in the main domains, that is cognitive, physical, social, and emotional.

Some of the responses:

Our role is to note each child's developmental milestones, share what you have seen with parents, and we also use the information for further planning of our activities in the classroom.

Monitoring developmental milestones offer important clues about a child's developmental health.

Completing each form for each child is time-consuming and it is also expensive to produce copies for all learners in the classroom.

The developmental checklist is user-friendly for large classrooms.

Administrators/Head of Centres

Responses from the administrators also confirmed that assessment is being done using different assessment tools. Some administrators indicated that they design developmental checklists for their schools.

Two heads of centres stated that they leave it to the teacher to choose which tool they want to use.

Regarding best opportunities in the use of the checklist

*Responses from teachers varied on opportunities, below are some of the responses
The use of these tools can help a teacher feel more confident about what to observe.
Checklists can be shared by the family with other professionals to help communicate their concerns.*

Checklists allow for progress to be demonstrated over a period.

Checklists can be completed by educators providing holistic and child-focused experiences that can draw on their knowledge of each child.

Regarding challenges faced in the use of the developmental checklist teachers had this to say

Time-consuming because you must complete a form for each individual child.

Checklists are not inclusive of children with additional needs who may not be able to succeed at completing tasks as expected at a given time.

They also do not take on board children's home life and cultural differences which may affect different aspects of development.

Checklists are difficult to record children's voices and their interests.

Regarding strategies that could be devised to alleviate these challenges

Teachers were asked to share some of the strategies they thought might be employed to mitigate this situation.

Some teachers stated that the use of other assessment tools would assist to address the challenges.

The developmental checklist should be designed in such a way that it embraces all the different traits.

Data obtained through Observation.

To complement the data obtained through interview and document analysis, the researchers made observations on the classroom environment during activities as well as during outdoor free play and the result is presented as follows. During planned activities children were doing different activities, and the teacher focused on teacher-directed activities, hence the other children were left to play in the indoor play areas, indoor play areas were well demarcated and labelled, however, in some cases learning play equipment was limited compared to the number of children in the area, some teachers had pieces of papers were they scribbling some comments about individual learners, others were recording, this was seen mostly in the outdoor area. In one center the teachers had the development checklist filled in as children were doing their activities.

Data obtained through Document analysis (Completed developmental checklist)

Twenty randomly collected developmental checklists from the five respective centres were analyzed. It was observed that the schools are using the same document in terms of layout and content. Each child in the class had his/her own developmental checklist. It was noted

that in some cases the teachers were just ticking to show that the learner has achieved that particular skill. Also noted in some documents ticks were followed by some comments. Of interest was that the ticking was done after a fortnight, in some cases after a month. In two centres it was noted that their developmental checklist only focused on social development.

Research findings and discussion

It is fundamental to understand how both formal and informal assessments, when developmentally appropriate design and purpose are used for early childhood learners. The first emerging factor captures how caregivers, parents, siblings, and extended family influenced the development at the ECD level. Follari (2011) chronicles that, a checklist is a document used to monitor each individual child's development based on developmental milestones peculiar to specific domains. Similarly, Bruce and Meggitt (2010) view the checklist record as meant to specifically check children's progress in different domains that include socio-emotional, physical, language, cognitive/intellectual and creativity. A checklist indicates activities across a range of developmentally appropriate tasks, abilities, and competencies in society. Apparently, as the name implies the tool focuses on checking the child's skills development, user-friendly, checklist was found to have gaps in that there was a lack of follow-up since parents rarely undertook the responsibility of monitoring their children's activities. From the caregivers' responses in this study, there was an indication that there were some gaps in the use of the developmental checklist as an assessment tool. Monitoring developmental milestones offer important clues about a child's developmental health and early intervention.

Importance of using the developmental checklist

A well-defined checklist with observation training is critical and essential for an assessment system (Fargundes et al., 1998). The use of a developmental checklist is a quick way of presenting a great deal of information. This document is user-friendly in our Botswana ECD centres where we find very high numbers of enrollment of learners. The same guide can be used for several children to find out more about the group. This can indicate gender differences or show that there are none. Observation of child behaviours and skills provides the teacher with a powerful measure of the child's abilities. For example, a teacher's observation of a child retelling what happened at home with a big smile and expressive language is a true measure of oral language skills than asking the child to retell a story in an unfamiliar setting. This allows the teacher to get valuable and individualized information about the child's developing skills and knowledge. The other opportunity is that they provide information that helps administrators strengthen existing programmes and hold them accountable.

Challenges in the use of the developmental checklist

The assessment of young children is very different from the assessment of older children and adults in many ways. The greatest difference is in the way young children learn. They construct knowledge in experiential, interactive, concrete, and hands-on rather than through abstract reasoning and paper-pencil activities alone (Emberton and Hershberger, 1999).

Also, assessment using a checklist can be challenging because care must be taken to maintain objectivity. It is very tempting to put a tick against skills which you previously thought the child had achieved. More often a checklist may not give a true picture if the child is less than cooperating on the day, or if the child is unwell, hence there is a need for an ongoing assessment using a variety of documentation methods and multiple adults (Hauser-Cram et al., 2001). This is essential in capturing the most comprehensive of a child's development over time in various contexts. At times checklist may not show how competent the child is at the task, only that it has been completed. Also noted is that the child should not be unaware of being assessed or may become stressed. One may have to show resourcefulness to turn the assessment into a game, otherwise, the data will be invalid and unreliable. Assessment should be individually administered to elicit the most accurate and useful information for the teacher/caregiver (Carman, 2007).

Conclusion

Based on the results gathered in this study, it can be concluded that developmental checklist is ideal for tracking children's development and learning, however, it should be used in conjunction with other assessment tools to cater for individual differences, age-appropriate, cognitive development level as well as cultural differences. In the process of assessing young children, all stakeholders should be incorporated if we are to realize total development in young children. It cannot then be over emphasized that we need to 'catch them young.' The appropriate use of information from early childhood assessments is to guide instruction and to determine what the child is ready for next in terms of knowledge and skills.

Recommendations

Given the findings of this study, the researchers would like to recommend that;

- The developmental checklist should be used in conjunction with other assessment tools.
- Teachers/caregivers are encouraged to make follow-ups on their observation assessment.
- Ticks in the developmental checklist are to be accompanied by comments.
- Appropriate use of the developmental checklist in a well-prepared environment can cater for individual differences and promote learning.
- Early Childhood centre should regularly assess children in order to monitor their growth and development.

References

- Aidoo. T. M. (2008) Political participation, governance and Neopatrimonial rule in Africa. The Case of Ghana. 1990-2000
- Allen, K. P. (2010). Classroom management, bullying, and teacher practices. *Professional Educator*, 34(1), n1.
- Airasian, P. (2002). *Assessment in the classroom*. New York; McGraw-Hill
- Airasian, P. W & Miranda, H. P. (2002). The Role of assessment in the revised taxonomy. *Theory Into Practice: Vol. 41, Revising Bloom's Taxonomy*, pp. 249-254.

- Babbie, E. R. (2008) *The Basics of social research*. Wadsworth: Belmont.
- Bandura, A. (1996). *Self-efficacy in changing societies*. Cambridge University Press: UK.
- Berk, L.E. (2000). *Child development*. Allyn and Bacon: Boston.
- Bernard van Leer Foundation. (2004) *Realising the rights of young children: Progress Challenges*. Bernard van Leer Foundation Publications: Netherlands.
- Boyce, C. (2006). *Abound how to be effective and fruitful in ministry*. RoseDog Books: Pennsylvania.
- Brewer, P. R. (2007) *Mock news and democracy, analysing the daily show*. *Atlantic Journal of Communication*. 15, 249-267.
- Brewer, J, A. (2014) *Introduction to early childhood education: Preschool Through Primary Grades*. Edinburgh: Pearson.
- Bronfenbrenner, (1994) *Ecology of the family as a context for human*.
- Bronfenbrenner, U. (1979). *The Ecology of human development: Experiments by Nature and Design*. Harvard University Press: <https://doi.org/10.2307/j.ctv26071r6>
- Bruce, T. & Meggitt, C. (2010). *Childcare and education*. Hodder & Stoughton: UK
- Carman, J. G. (2007). *Evaluation practice among community-based organisations: research into Reality*. *American Journal of Evaluation*, 28(1), 60-75.
- Creswell, J. W. (2014) *Research design, qualitative quantitative approaches (4th Ed)* Thousand Oaks: CA Sage.
- Fagundes, D., Haynes, W., Haak, H., & Moran, M. (1998). *Task variability effects on the language test performance of southern lower socioeconomic class African America and Caucasian five-year-olds*. *Language, Speech and Hearing Services in Schools*, 29,148-157.
- Feeney, S., Moravcik, E., Nolte, S., Christensen, D. (2010). *Who Am I in the Lives of Children? An Introduction to Early Childhood Education*. Prentice Hall PTR, United States.
- Follari, I.M. (2011). *Foundations and best practices in early childhood*. New Delhi: Pearson.
- Frankel, J. & Hobart, C. (2009). *Child observation and assessment. A practical guide* Cheltenham: Nelson Thornes.

- Helm, J., Beneke, S., & Steinheimer, K. (1998). *Windows on learning: Documenting young children's work*. New York: Teachers College Press.
- Jalonga, M. R. (1992). *Early childhood language arts*. Massachusetts. Allyn and Bacon.
- Katz, L. (1988). "Engaging children's minds: Implications of research for early childhood education". Association for Supervision & Curriculum Development.
- Marshall, N.L. & Roberts, J. (2007) *Boston quality inventory: Preschool classroom in community programme*. Wesley: Wesley Centres for Women.
- McMillan, J.H. & Schumacher, S. (2010). *Research in education: Evidence: Evidence-Based Inquiry* (6th Ed). New York: Harper Collins College Press.
- Morrison, G.S. (2012). *Early childhood education Today*. Pearson, London.
- Newman, W. L. (2000). *Social research methods*. Allyn and Bacon: Whitewater.
- Okeke, C. P. (2010) *Teacher job dissatisfaction: Implications for teacher sustainability and social transformation*. *Journal of Teacher Education for Sustainability*. 19(1): 54-60.
- Pan African Forum for Children (2001). *Children speak out on key issues at the Third Pan African Forum on Children*. News Press: UNICEF.
- Paquette, D and Ryan, J. (2001). *Bronfenbrenner's ecological systems theory*. National-Louis University. Retrieved from <http://pt3.nl.edu/>.
- Pearson, E. & Degortadi, S. (2014). *The Relationship worlds of infants & toddlers: Multiple perspectives from Early Years Theory and Practice*. Open University Press: Boston.
- Rebecca A. & Marcon, A. (1999) *Positive relationships between parent school involvement and public- school inner-city preschoolers' development and academic performance*, *School Psychology Review*, 28:3, 395-412.
- Ribson, C. (2002). *Real world research* (2nd Ed). Oxford: Blackwell. Morrison, G.S. (2012). *Early Childhood Education Today*. Pearson, London.
- Santrock, J. W. (2002). *Children*. McGraw Hill Post.
- Schoeman, S. (2005) *Educating democratic minds in South Africa Public Schools: African Teachers' Perceptions of Good Citizenship*. *Journal of Negro Education*, 74(1):275-286.
- Thompson, F. A. (1996). *A Guide for primary school teachers in Africa*. Hong Kong: Longman

PERCEPTION OF SECONDARY SCHOOL TEACHERS ON THE APPLICATION OF RESEARCH FINDINGS IN CLASSROOM PRACTICES: IMPLICATIONS FOR SUSTAINABLE DEVELOPMENT

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Abstract

The study investigated the problem of secondary school teachers in the application of research findings to classroom practices. A descriptive research design of the survey type was used. The population of the study consisted of all public secondary school teachers from 10 secondary schools in Akoko South West Local Government Area of Ondo State. A self-developed questionnaire of 4 scale rating was used ($r= 0.65$). Three research questions were raised and answered with mean and standard deviation, while two hypotheses were formulated and tested at 0.05 level of significance using t- test statistics. Among other findings, the result revealed non-involvement of most secondary school teachers in in-service training programmes. Also, there are no Internet facilities for teachers in rural areas to access research information. Some of the implications of the findings are that most teachers do not have the opportunity to attend conferences, seminars, and capacity building programmes that will enhance their professional development especially in application of research findings to classroom practices. These ultimately have implications for sustainable development. Consequently, some recommendations were made to the government and other stakeholders in the education sector.

Keywords: Teachers' perception, research, research findings, classroom practices, sustainable development.

Introduction

Education for Sustainable Development (ESD) permits every human being to acquire the knowledge, skills, attitudes and values needed to shape a sustainable future (UNESCO, 2018a). According to Sterling (2008) the concept of sustainable education refers to a change in culture in the way education and learning can be sustained. It focuses on imparting knowledge and empowering students to become real-world problem solvers. Sustainable education refers to activities or processes for acquiring or sharing knowledge or skills, developing the powers of reasoning and intellectually preparing oneself or others for life (Thesaurus, 2021). Many of today's problems needs a key shift in thought and behavior to support sustainable living which can be achieved through research. Sustainable development refers to the development that meets the expectation of the present without compromising the ability of future generations to. The role of research in sustainable

development is that research will help the decision making process of the education stakeholders easy.

Classroom practices are the daily activities that goes on in the teaching learning process in the classroom .These activities includes classroom management, pedagogy, learning activities as well as students engagement in learning and the use of instructional time. According to (Darling-Hammond et al., 2020) classroom practices are elements and process of teaching, with the elements being the goals, objectives, task, discourse and interactions, while the processes are the planning for instruction, implementation of the plan, assessment and reflection. (Schildkamp, 2020) described classroom practices as a process which involves multiple agents and their interactions within the classroom as a system. The major point in all these studies is that research is finding ways for understanding assessing and improving the quality of classroom practice. Wenglinsky (2001) posited that classroom practices have the greatest contribution to student learning outcomes because the classroom is the place where students and teachers interact and discusses as to what to do in this place most strongly affect student learning outcomes. (Wolff et al., 2020) argued that classroom practices are those teaching and learning activities and interactions processes within a classroom system that enables contextualization of the content that is taught and learnt.. Classroom practices requires dynamic interactions influenced by internal and external factors such as research. Teachers plays crucial role in promoting sustainable development. The role of research in sustainable development cannot be overemphasized. Kothari (2004) described research as answers to inquiries and solutions to issues. It is a purposive examination. Research has unique significance in solving several operational, and planning related problems of education

Research is an indispensable tool in improving teaching and learning. Research findings leads to improvement of knowledge, planning and development. Research findings are the results obtained from research activities. The only possible way to advance as a nation is for our researchers to engage in the process of finding answers to certain questions needed in national planning and sustainable development. The importance of research in education cannot be overemphasized. Research aids in decision making. The result obtained from it enables people make informed decision in every sector of life especially in the classroom. Research is an important instrument in finding answers to unsolved problem .Research findings is the result arrived at from data analysis and it denotes the real relationship between or among variables being examined by the researcher. Every day education stakeholders, Government, parents, guardians, teachers and students are faced with poor performances in school subjects in various external examination such as West African Examination Council (WEAC). This poor performances can be due to poor teaching methods, student's lack of determination, bad school environment, and lack of laboratory and so on. Research helps teachers describe what is wrong, how to make students understands better and improve on teaching methods that might be more helpful than others (Moyebi, 2023). The Government of Nigeria have spent several large sum of money in implementing various laudable program to improve students learning outcomes in various examinations but the reverse is the case. Many workshops, seminars and conferences organized by Universal Basic Education program to improve capacity of teachers seems not yielding the desire results as a result of lack of application of research findings. This is

because the improvement of learning outcomes is gotten from research findings. According to Dimson and Uzoma(2013) research is key for advancing knowledge progress and enabling a man to improve on his activities. The objective of research according to Nwana in Ilogho(2022) is to search for fact, information to solve the existing identified problems that befall a particular system especially the education sector. Moyebi(2023) explains that through researches various teaching and learning approaches that improves students learning were gotten and recommendations are made. Such approaches are helpful in improving the teaching learning process to enhance students learning and improve their performance. However, from classroom observations and literature available there is a great discrepancy between research findings and application of such findings in classroom practices. There is a wide gap between the discoveries in research and the application such findings to solve problems in the classroom.

Dimson and Nzoma (2013) pointed out that most of the research findings are not available and accessible to the classroom teachers not to talk of teachers applying such findings in the classroom. That most of the discoveries are hid under conference proceedings and journals where they were published. Research is the key to driving innovation and improvements and is used by the education system to drive change in various areas including classroom practice. Research is of no use unless it gets to the people who need to use it (Moyebi, 2023). The gap is how do these research findings gets to the right people for application? Hence there is need to find out how research findings are disseminated and the application in the classroom practice.

Different research have shown reasons why research findings are not used in the classroom setting among secondary school teachers. Njoku (2004) and Onyegegbu (2004) conclude from their studies reasons for non-application of research findings to include, lack of conference and seminar attendance, poor knowledge to access journals where the research findings are published and discussed, Njoku (2004) further stressed that non-application of research findings is a challenge and its due to overcrowded classrooms, poor teachers knowledge, lack of learning facilities, poor teaching strategies, lack of information Technology facilities , poor internet access among secondary school teachers. This called for the need to understand the challenges secondary school teachers encounter for effective application of research findings become inevitable. This is as a result of the fact that adequate knowledge of the research findings will enable the teachers to apply such to the classroom environment. Hence, this study will be useful to guide the teachers to apply the research findings in the teaching learning process in the classroom.

Research Questions

The following research questions were raised to guide the study:

1. What is the level of involvement of secondary school teachers in research activities?
2. What is the level of accessibility of research findings among secondary school teachers?
3. What are the challenges militating against the application of research findings in secondary school?

Research Hypotheses

1. There is no significant difference in the application of research findings based on gender of the teacher.
2. There is no significant difference in the application of research findings based on location of school.

Methodology

The study adopted a descriptive survey design. The population consist of all secondary school teachers in Akoko South-West Local Government Area. The sample consists of two hundred (200) secondary school teachers using stratified random sampling technique based on location of schools. The instrument used for the study is a self-structured questionnaire on four-point likert scale. It has two sections A and B. Section A is made up of demographic variables while section is consist of 18 items divided into three subsections.

The instrument was face and content validated by experts in Test and Measurement in the Department of Guidance and Counselling, Adekunle Ajasin University, Akungba-Akoko. The reliability was established using test-retest method. The instrument was administered to teachers outside the target population, two set of data were obtained after two weeks interval. The data was subjected to Pearson Product Moment Correlation and yielded a correlation coefficient of 0.82. The instrument was administered to the respondents with the aid of two research assistants' All questionnaire were retrieved within a day. Mean was used to answer the research questions, while t-test of significance was used to analyse the hypotheses. A grand mean of 2.50 was used for decision. Any item with mean above 2.5 and above is considered high while any item below 2.5 is considered low.

Table 1: Mean responses on attendance of conferences, seminar and other research related activities

S/N	ITEMS	\bar{x}	VC	DECISION
1.	Teachers always attend conferences in my school	1.45	2.50	LOW
2.	Teacher used to attend seminars in my school	1.69	2.50	LOW
3	Teachers attend workshops in my school	2.0	2.50	LOW
4	There is always training on teaching in my school	1.75	2.50	LOW
5.	I attend other research related programs in my school	1.85	2.50	LOW

The results from table 1 revealed that mean responses of teachers conference attendance is 1.45, seminar attendance is 1.69, workshops attendance is 2.0, training attendance is 1.75 and research related activities is 1.85. This implies all items about teachers attendance is below the criterion mean of 2.50. This means, teachers of secondary schools are not really involve in conference, seminar, workshops and training attendance.

TABLE 2: Teachers responses on accessibility of research materials

S/N	ITEMS	\bar{x}	VC	DECISION
6	Teacher have their own journal	1.50	2.50	LOW
7	Journal and other research materials are available in the school	1.60	2.50	LOW
8.	There is impress to buy research materials	1.85	2.50	LOW
9	My school has library with journals , projects and others	1.70	2.50	LOW
10	My school subscribe to journals and conference proceedings	1.55	2.50	LOW

Table 2 revealed low mean cluster in all the items. This implies teachers do not have access to conference materials and proceedings. The library in the school too is not equipped with research materials.

Table 3: Mean Response of Secondary School Teachers on the Problem of Research Finding Application in Classroom Practices;

S/N	ITEM	\bar{x}	VC	DECISION
11	There is no enough training for research	3.00	2.50	High
12	No development of self through Government sponsorship	3.52	2.50	High
13	No motivation to attend conferences	3.19	2.50	High
14	No extra pay for additional qualification	2.64	2.50	High
15	Misunderstanding of the concept of research	2.96	2.50	High
16	No computer to access internet, research findings	3.08	2.50	High
17	Lack of knowledge of the need for research findings	3.45	2.50	High
18	No electricity / lack of funds	3.0	2.50	High

Table 3 showed all items means are above the criterion mean which indicate that there are problems among secondary school teachers in the application of research findings.

Hypothesis 1: There is no significant difference between male and female teachers in their perception of application of research findings in the classroom practices

Table4 T-test analysis of mean of female and male teachers perception of the application of research findings in the classroom practices

Group	N	MEAN	SD	df	t-cal	t-crit	Decision
Male	80	18.93	3.85	198	1.91	1.96	Accept
Female	120	18.26	3.28				

Table 4 showed that the mean scores of male and female teachers are 18.93 And 18.26 respectively. When t-test analysis was employed to compare these scores a calculated t-value of 1.91 was obtained. This means that there is no significant difference between male and female teachers perception on the application of research findings.

Hypothesis 2: There is no significant difference between urban and rural school teachers on their perception of the application of research findings in the classroom.

Table 5: T-test analysis of the mean of urban and rural teachers on their perception of application research findings in classroom practice

Group	N	MEAN	SD	Df	t-cal	t-crit	Decision
Urban	100	65.3	10.99	198	6.84	1.96	Reject
Rural	100	74.01	6.3				

Table 5: shows that the calculated t-test is more than tabulated one, therefore the null hypothesis is rejected. The result of the test reveals that the difference between the mean scores of urban and rural teachers on their perception on application research findings in classroom practices

Discussion

From the results in table 1 most of the secondary school teachers do not participate in conference, seminar, workshops and research related activities. This implies that the teachers do not apply research findings. If the teachers do not attend how possible would they apply research findings in classroom practices. How useful is research if does not get to the hand of the users to solve problems. This findings is in line with (Dimson &Uzoma,2013) who stressed that primary school teachers should be involved in the attendance of conferences, seminar, workshops and research related activities to be able apply the research findings in classroom practice.

The findings of Table 2 revealed that teachers do not have access to research findings. This implies teachers do not have access to conference materials and proceedings. The school libraries are not well equipped with research materials. The schools are not buying research proceedings, how would the teachers have access to the solutions provided through research activities to sustain development? Findings from table 3 showed some of the

challenges that makes it difficult for teachers to attend conferences, seminar, workshops and other research related activities are lack of funds in the school, no motivation from the schools to teachers, no remuneration for additional qualification, misunderstanding the concept of research, lack of computer and internet facilities to access online research materials. Teachers seems dormant, no capacity building trainings (Moyebi, 2023). No teacher can give out what he does not have, so this called for more collaboration with government to provide ways to enhance teacher's attendance and access to research findings. This findings are in agreement with Nwosu (2004), Dimson & Uzoma, 2013 and Moyebi (2023).

The findings on table 4 revealed that there is no significant difference in the perception of male and female teachers in the application of research findings in the classroom practice. Most teachers seems not attend conferences, workshops, seminars and other research related activities and do not have access to these research findings as result of no motivation, no internet facilities and so on. This is in line with Ilogho(2022). Further findings in table 5 showed that there is significant difference in the perception of teachers in the rural and urban schools. This could be as result of the fact that most conferences, workshops, seminars and trainings are done in the urban areas which gives more opportunity to urban teachers to attend and also have access than rural teachers. This implies the challenges of application of research findings is more in rural schools than urban.

Conclusion

The findings revealed that most teachers in the secondary schools do not attend conferences, seminars, workshops and other research related activities especially in the rural schools. They do not also have access to the research findings from conferences organized. The problems of application of research findings in classroom practices is due to, no training in research activities, no remuneration for additional qualification, no motivation from authorities and Government, no internet facilities, no sponsorship for attendance. Research is a vital tool in sustainable development. Research findings are indispensable tools to improving teaching learning process in classroom practice. To sustain development, there is need to make research attendance compulsory once in a term or year to make access for teachers to research findings and also improve their classroom practices. Result revealed non- involvement of most secondary school teachers in in-service training programmes. Also, there are no Internet facilities for teachers in rural areas to access research information.

Implications for Sustainable Development

The relationship between research and sustainable development is crucial. There will be no sustainable development if teachers and stakeholders are not involved in research, talk less of applying the research findings in classroom practice.

Some of the implications of the findings suggest that most teachers do not have the opportunity to attend conferences, seminars, and capacity building programmes that will enhance their professional development especially in application of research findings to classroom practices. These ultimately have implications for sustainable development and therefore something must be done to curb the problems of application of research findings

in the classroom by government, education stakeholders, principals so that application of research findings will be improved for sustainable development.

Recommendations

Based on the findings of the study the following recommendations were made:

1. Government should sponsor research activities in the public secondary schools
2. All schools should encourage teachers to engage in research activities by providing enabling environment to enhance application of research findings in the classroom practice
3. Rural schools should be provided facilities to make teachers have access to research findings.
4. Researchers should donate research materials to schools to enable teachers have access to research findings and apply such innovations in classroom practice.

References

- Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24(2), 1–44.
- Dimson, J.N & Uzoma, P.N (2013) Perception of primary school teachers on the application of Research findings in classroom practices. *Nigeria Journal of Educational Research and Evaluation*. 10 (3) 71-80.
- Ilogho, F.E (2022) Application of research findings in Mathematics education to enhance Classroom instruction: the place of cooperative learning strategy. A seminar paper Presented in the department of Guidance and Counselling, AAUA.
- Kothari, C.R. (2004) Research methodology: methods and Techniques. New age international (p).ltd. Accessed 20/8/2023. <http://www.researchgate.com>.
- Moyebi, M.E (2023) Extent of use of research findings on instructional strategies in teaching Mathematics in Ese-Odo Local Government area of Ondo State. Unpublished PGDE, ACE, Ondo.
- Njoku, Z.C (2004) Fostering the application of science in education research findings of Nigeria Classroom strategies and need for teachers' professional development in Alake (Ed) STAN Proceedings.
- Onyegebu, N. (2004) Usage of science education Research findings by practicing Biology Teachers' lessons and conversations In Akale (Ed) Science Teachers Association of Nigeria Proceedings. Heinemann Educational Books.
- Schildkamp, K. (2020). Formative assessment: A systematic review of critical teacher prerequisites for classroom practice. *International Journal of Educational Research*, 103(101602), 101602. <https://doi.org/10.1016/j.ijer.2020.101602>
- Sterling, S (2008) Sustainable education towards a deep learning response to unsustainability Policy and practice. *A Development Education Review* 6(spring) 63-68.
- Thesaurus (2021) Education. <https://www.diclag.com/browser/education>. Assessed 22/8/2023.
- UNESCO (United Nations Educational Scientific and Cultural Organization) (2018a) Sustainable development. <https://en.unesco.org/themes/education-sustainable-development/what-is-esd/sd>. Assessed 22/8/2023.

- Wenglinsky, H. (2001). Teacher classroom practices and student performance: How schools can make a difference. Research Publications Office Mail Stop 10-R Educational Testing Service Princeton, NJ 08541. Research Reports (September)
- Wolff, C. E., Jarodzka, H., & Boshuizen, H. P. A. (2020). Classroom Management Scripts: a Theoretical Model Contrasting Expert and Novice Teachers' Knowledge and Awareness of Classroom Events. *Educational Psychology Review*, 33(1). <https://doi.org/10.1007/s10648-020-09542-0>

REDUCING PREJUDICE AGAINST STUDENTS WITH DISABILITIES IN INCLUSIVE SETTINGS THROUGH THE AFROCENTRIC MODEL OF INCLUSION

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Abstract

Attitudinal barriers and discriminatory practices continue to prevent the full participation of students with disabilities in developmental learning contexts. Although disability has been on the psychological agenda for some time, there is limited empirical evidence on adopting African models to buffer prejudices. This study addresses this critical gap by examining the experiences of disabled children subjected to prejudices in inclusive settings and the adaptation of the Afrocentric model to buffer those behaviours. The study was guided by Allport's Social Reflection Theory, which explains why some groups may be targets of prejudice. This study was an exploratory qualitative case study undertaken in 4 inclusive schools in Gauteng province. Participants were 60 educators and 400 disabled students in inclusive schools. Purposive sampling was used to choose participants in the study. Data was collected through semi-structured interviews and observations. Of the 60 educators, only 20 were interviewed, and the researcher observed the engagement of the educators and 400 disabled learners. Data collected were analyzed through qualitative thematic data analysis. From the themes that emerged in the findings, only the following themes will be discussed: the **principle of "ukweli"** (advancing the truth in our praxis), the **principle of "utulivu"** (creating harmony), the **principle of "uhaki"** (fairness), and **Ubuntu** (humanness). Following the practice of including the themes in their learning contents over a period of 2 years, teachers reported improved grades and low dropout rates. **Keywords:** Prejudices, Disabled learners, Inclusive settings, Afrocentric inclusion model

Introduction

This paper is reporting the findings on reducing prejudice against students with disabilities through the Afrocentric model of inclusion in inclusive settings. Following the educational transformation experienced by the South Africans post-1994, discriminatory laws promoting layers of inequalities in the education spectrum were abolished. Following the adoption of Inclusive Education (IE) and its implementation, policies on inclusion, like the White Paper 6, were also implemented. According to the Department of Education (2001), South African schools admitted learners with disabilities to receive education alongside their peers in their neighbourhood environment. Including disabled learners in inclusive schools is a social justice move the country's Constitution promotes. It aims to enable disabled learners to realise their full potential and meaningfully contribute to society. The Education for All (EFA) initiative, first put forth in 1990 by the international community, marked a global movement towards providing quality basic education to all children, youth, and adults (United Nations Educational, Scientific, and Cultural Organization (UNESCO), 1990). Specific goals were proposed to accomplish this initiative, like eliminating education inequalities and improving all aspects of education to provide quality education for all. In 2000, 189 countries renewed their commitment to reaching these

educational ideals by adopting the Sustainable Developmental Goals (UNESCO, 2000); South Africa is a signatory. To effectively attain her set goals, particularly SDG 4, which speaks about quality education and inclusive education, South Africa must fight attitudinal barriers, which can be attributed to the legacy of the education policies instituted under apartheid.

Engelbrecht (2006) states that “[t]he central feature which distinguishes South Africa from other countries in terms of education provision is the extent to which the institutionalization of discriminatory practices led to extreme disparities in the delivery of education, a reflection of the fragmentation and inequality that characterised society as a whole.” According to Donohue and Bornman (2010), “[a] general lack of support, as well as the prevailing negative attitudes toward disability, contribute to the general bewilderment in South African schools towards inclusion.” In school systems, there is a prejudice that learners with disabilities are not as capable or as smart as the other abled learners and that they need to be excluded from inclusive classrooms to receive special education services. This type of prejudice is a barrier to including these learners and integrating special needs learners in inclusive classrooms.

Although the terms prejudice and discrimination are often used synonymously, they have distinct meanings. Prejudice, defined in the American Heritage Dictionary as "an adverse judgment or opinion formed beforehand or without the knowledge or examination of the facts" (2003) is an attitude or belief that can be distinguished from discrimination that is exhibited and experienced at the behavioural level (Pine & Hilliard, 2010). Discrimination is the behavioural manifestation of prejudice. This social group suffers from prejudice. It is stigmatised and called names just because they have different abilities. Attribution to prejudice is about ascribing a differential often negative group-based treatment to discrimination (Major & Sawyer, 2009). Discrimination is often a counter-normative behaviour (Cambon & Yzerbyt, 2017; Crandall et al., 2002; Klonis et al., 2005; Plant & Devine, 2008) that is inconsistent with the prevalent egalitarian norm and thus largely socially disapproved (Monteith & Walters, 1998; Czopp & Monteith, 2003).

Attitudinal barriers and discriminatory practices continue to prevent the full participation of learners with disabilities in learning developmental contexts. Although disability has been on the psychological agenda for some time, there is limited empirical evidence on adopting African models to buffer prejudices. This study addresses this critical gap by examining the experiences of disabled children subjected to prejudices in inclusive settings and the adaptation of the Afrocentric model to buffer those behaviours. Prejudice is an adverse judgment formed beforehand or without knowledge of the facts. The rationale for this study is the high dropout rate of disabled learners who complain about stigma, attitudes, and discrimination in schools. The stereotypical views held about those with disabilities affect the development of children who receive both blatant and subtle messages that challenge their integrity as learners. Many will never reach their fullest potential because of their exposure to prejudice and discrimination (Gleason, 2011; Derman & Sparks, 2013).

Children who are different often experience isolation and rejection in school settings. Even at the preschool level, children with disabilities may not be chosen as friends or playmates (Diamond, 2004). They may sometimes be excluded because other children do not believe they are interested or can participate in a particular activity (Diamond, 2004). Exclusion may also be based on how children view differences. If the differences are considered deficits, they may devalue the child with a disability, resulting in further isolation and discrimination.

The prejudicial messages go beyond affecting achievement and attack the child's concept of self and others. Children internalise these messages and may themselves prefer children of the dominant, majority culture. For example, whites are often preferred by young children from both majority and minority groups (Aboud, 2008). Parish et al. (2010) report similar phenomena in the area of exceptionality. Their study revealed that both children with and without disabilities preferred themselves and others without disabilities to those with different disabilities. The study conducted by Roy (2019) revealed that teachers create prejudice within their classrooms without even realising they are doing it. Roy (2019) also revealed that there have been many different attempts at eliminating these prejudices in the classroom, but none have been proven to work one hundred percent of the time. The goal is to find new ways to incorporate special needs children in the classroom without excluding them from activities. Teachers affect the acceptance of children by the attitudes they model in the classroom. Parish et al. (2010) found that teachers were significantly more negative toward children with disabilities and that children imitated the teachers' ridicule of students who were viewed less favourably. On the other hand, the literature is replete with accounts of how teachers influence discrimination of children with disabilities (Derman-Sparks, 2013; Gollnick & Chinn, 2010; Parish et al., 2010; Pine & Hilliard, 2010; Whalen, Henker, Dotemoto, & Hinshaw, 2003). Gleason (2011) asks us to consider the implications of the need for multicultural education in the preparation of teachers. In South Africa, multicultural education failed to address the inclusion and acceptance of learners with disabilities in inclusive classrooms (Jones, 2008).

Theoretical Framework

The study was underpinned by Allport's Social Reflection Theory (Allport, 1958), which provides insight into why some groups may be targets of prejudice and discrimination. According to this theory, children adopt attitudes and stereotypes about groups of people according to the power and status held by those groups. Often, children will adopt parental values, which may be directly taught or merely observed and imitated by the child. The child associates negative emotions with labels describing individuals, later associates these labels as corresponding to categories or groups, and finally may generalise the labels and associated attitudes to all persons within the group. At this point, the child's views are an integral part of his or her personality and are difficult to alter. This theory is appropriate for the study because certain groups of students (students with disabilities) are targeted in schools because of their status. The discrimination of these students is also practiced by the adults; hence the other children observe the behaviour of adults and practice it.

Methodology

The qualitative single case study type was adopted for this study because it helps answer questions about the complex nature of the phenomena, often describing and understanding the phenomenon from the participant's point of view (Greig & Taylor, 2009). The fact that it looks at a single case, namely, reducing prejudice against students with disabilities in inclusive settings through the Afrocentric model of inclusion, helps us understand the complex nature of a phenomenon.

The research was conducted in schools regarded as a model of inclusion situated in the northern part of Tshwane in Gauteng province, South Africa. The schools consist of grades 7, 8, and 9 and are situated in a semi-rural area. Participants were 60 educators and 400 learners (both disabled and abled). Purposive sampling was used to choose participants in the study. Purposive sampling was selected as a method of selecting participants because the researcher wanted to do research in inclusive schools, involving educators who interact with the learners in question on a daily basis and the group in question, which are disabled students. As Krathwohl (2003) stated, purposive sampling is assembled by intentionally seeking individuals for a situation likely to yield new instances and a greater understanding of a dimension or concept of interest. Participation was voluntary, following a thorough explanation of the study and research ethics. Consent was obtained from parents, allowing their children to participate, and their confidentiality was assured. Their names were protected by using pseudonyms. Recruitment of participants (teachers and learners) began as soon as permission from higher authorities (Provincial Department of Education, District Office, and Principals of the schools) was granted. In initial meetings with each participant before the actual data collection sessions, participants were informed of the purpose of the study, its voluntary nature, and their right to protection and withdrawal without penalty or negative consequences. Each was offered an opportunity to ask questions before signing a consent form. Each participant was given a summarised copy of the research proposal to peruse in their own time before deciding on their participation. The interviews were conducted in the selected schools and took place after school activities. There were questions guiding the interviews. The data collected was analysed through qualitative thematic data analysis.

Findings of the Study

A couple of themes were derived from the analysis. For the purpose of this article, we will present the most burning theme expressed by teachers: showing love and support to the disabled child through the practice of Ubuntu philosophy.

The Principle of Ubuntu

The participants expressed kaleidoscopic reactions to reducing prejudice against students with disabilities in inclusive settings. They mostly emphasised the concept of acceptance-accepting that children with disabilities are still exposed to and oppressed by prejudice and discrimination.

Teacher 4: "Yes, I agree that this school treats poor children badly. It is heartbreaking."

Teacher 18: “Another day the teacher scolded a disabled learner in front of other children, and she even said: you don’t listen when I am talking, that is why God made you disabled”.

Teachers indicated that acceptance may be the first step to reducing children's prejudice.

Teacher 12: disabled children are being treated badly here in school, but when we [teachers] deny it. We deny the truth. We should agree. We should accept that discrimination is alive.”

The second step they emphasised was the concept of Ubuntu- showing kindness, love, support, and togetherness to everyone in schools.

Teacher 2: “I think we [teachers should show love towards these children.”

Teacher 11: “The government is paying us to teach all the children and to support them equally so that they can pass at the end of the year.”

Teacher 6: but we are prepared to change it is not too late, let us show them love and support them as our own children.”

During observation, the researcher noted that some learners did not practice any form of discrimination because of the presence of the stranger within them. Some treated the learners with disabilities nicely but the responses from the learners with disabilities clearly indicated that they are amazed or shocked by the love other children are displaying. They are not used to that love. According to Phasha and Akabor (2022), the African philosophical concept of Ubuntu is the sense of togetherness and collaboration, viewing people as being one part of a larger whole and attributing success as a collective of society. In other words, the success of one should be the success of all. The correlation between the concept of Ubuntu dovetails with the cooperative and collaborative values of an inclusive education system.

Ubuntu calls upon humans to react with respect, dignity, and sensitivity toward one another (Mbiti, 1969). This aspect resonates well with the biblical verse – treat others as you would like to be treated. Individuals are valuable irrespective of their characteristics. Children (irrespective of their differences) are seen as having unique potential, abilities, and talents. Together with their age-mates, they should be nurtured and developed by teachers who respect their uniqueness. Any form of treatment that makes learners different from others is frowned upon as disturbing harmony and the development of proper relationships. Such treatments make children view themselves differently, as superior, or inferior and could promote feelings of intolerance and undermine social solidarity (Phasha, 2016).

Teacher 7: we are killing these kids by not loving them. Where is humanity? What is our conscious saying to us?”

Teacher 3: Let us return to the ways of our forefathers- ubuntu- loving and caring for one another.”

From Ubuntu’s perspective, an individual needs to be in the midst of others to qualify for the status of a human being (Ramose, 2001; Meltz 2011). In other words, an individual’s humanity is recognised only if they are integral to the community. According to Phasha (2016), Ubuntu does not put people in cubicles; it situates them within the web of relationships. An African child is born into a world of connected people, not necessarily by blood. This makes the child a relative of many people in their community.

Teacher 8: some of these children are also orphans. They don't have parents. We, the community, should raise them well, to be better persons tomorrow. To be leaders of tomorrow."

Teacher 10: some children are good, clever, and need support to boost their self-esteem. We should encourage support from their relatives and communities, but maybe we should start it here in the school."

Disabled children should receive treatment equal to their age mate. This aspect makes children stay in solidarity with their members. Therefore, anything that separates them from their peers violates their rights and constitutes a denial of support (Phasha, 2016).

Teacher 2: the other teachers will even ask their peers to hit them, so how are other children going to love them?

The researcher noted that learners with disabilities are always isolating themselves and are withdrawn. They show that they are not well treated and supported, and their self-esteem is very low.

The Afrocentric principle is "ukweli".

According to Reviere (2011), the concept originated in and was borrowed from Swahili, which means that the teacher is vital in executing the role of a moral builder and a pastoral caregiver in supporting, promoting, and instilling good citizenship practices in his or her lesson preparation at all times. According to Afrocentric educationists, ukweli, therefore, mandates that the creation of knowledge must be done within the context of the school community and, in particular, in the inclusive curricula and the community's own experiences (Reviere, 2011).

Teacher 18: "Some teachers in these schools are pastors and they are trying so hard to preach about loving one another and especially the circumstances faced by some of the children here."

Teacher 20: teachers are mandated to love and support all children in schools, regardless of how they are."

Teacher 5: "Some of us here, have done courses in educating special needs children, we know that we should accommodate these children so that they can feel at home."

Teacher 2: not only to admit them in schools, but we also have to change the curriculum as well to cater for their learning needs."

The Afrocentric principle is "utulivu."

The principle, utulivu, is a Swahili name that means 'create harmony for the sake of peace and respect.' Scholars argue that teachers, as agents of change, should prevent setting up unnecessary conflicts but instead supply good role models for learners (Reviere, 2011; Shockley, 2011; Van Wyk, 2014). Teachers must try to create and support healthy interactions among groups.

Teacher 17: "Schools are places where children should live in peace and harmony not fighting all the time."

Teacher 19: "we recently had a workshop on building safe schools for children. I think we are going to use the information to create a safe and harmonious environment."

Teacher 16: as Africans, we should embrace the differences between us and strive for connectedness and unity. How are we going to be united if we discriminate against others?"

Teacher 3: Teachers are regarded as agents of change- we should bring changes to schools- change the thinking of people, the attitudes of teachers and other learners and the behaviour of the school community at large."

The Afrocentric principle is "uhaki."

The third principle, uhaki, requires a learning process that is fair to all learners and a process that is applied with the well-being of all the participants in mind. Fairness, or justice as defined by this principle, must apply to all communities with a stake in the outcomes of the educational process, that is, everyone (Reviere, 2011). Uhaki asserts that the teacher takes account of the interests and well-being of the community being served to build a just society. The best interests of learners should be uppermost – this is what justice means. Applying uhaki also means that one cannot ignore the historical and social context in interpreting and responding to any element of the learning process.

Teacher 1: some disabled children drop out of school and they stay home where they are subjected to all forms of abuse. What are we teachers saying?"

Teacher 4: what is happening here is an injustice to the learners with disabilities. It is really unfair especially when practiced by teachers as well."

Teacher 6: The constitution of the country protects all the children, but we are doing the opposite. I say "we" because if we allow other teachers to practice injustices, it means we are promoting it and we are also part of those who practice it."

Teacher 9: I call upon all teachers to create a safe and harmonious environment and eradicate all forms of prejudices against learners with disabilities.

Conclusion

It has been proven that there is a prejudice that learners with disabilities are not as capable or as smart as the other learners and that they need to be excluded from the normal classroom. They are even subjected to verbal and physical abuse in schools. The abuse is practised by both teachers and classmates. This showed a lack of empathy and lack of humility in the school community. Where is humanity? What happened to our African ways of embracing and accepting each other? Why are we fighting against what God created? The answer to all the questions above was to return to the African ways of accepting one another. Truth, justice, and creating harmony is the answer to working towards eliminating this prejudice and giving learners with disabilities the best possible opportunities so that they can succeed.

References

- Aboud, F. (2008). *Children and prejudice*. London: Basil Blackwell
- Allport, G.W. (1958). *The nature of prejudice*. Cambridge, Mass: Addison Wesley.
- Cambon, L., & Yzerbyt, V. (2017). Compensation is for real: Evidence from existing groups in the context of actual relations. *Group Processes and Intergroup Relations*, 20(6), 745–756. DOI: <https://doi.org/10.1177/1368430215625782>
- Crandall, C. S., Eshleman, A., & O'Brien, L. T. (2002). Social Norms and the Expression and Suppression of Prejudice: The Struggle for Internalization. *Journal of Personality and Social Psychology*, 82(3), 359–378. DOI: <https://doi.org/10.1037//0022-3514.82.3.359>
- Czopp, A. M., & Monteith, M. J. (2003). Confronting prejudice (literally): Reactions to confrontations of racial and gender bias. *Personality and Social Psychology Bulletin*, 29(4), 532–544. DOI: <https://doi.org/10.1177/0146167202250923>
- Derman-Sparks, L. (2013). Empowering children to create a caring culture in a world of differences. *Childhood Education*, 70(2), 66-71
- Diamond, K. (2004). Evaluating preschool children's sensitivity to developmental differences in their peers. *Topics in Early Childhood Special Education*, 14, 499-46
- Donohue, D. K., and J. Bornman. (2015). "South African Teachers' Attitudes Toward the Inclusion of Learners with Different Abilities in Mainstream Classrooms." *International Journal of Disability, Development, and Education* 62 (1): 42–59. doi:<https://doi.org/10.1080/1034912X.2014.985638>.
- Engelbrecht, P. (2006). "The Implementation of Inclusive Education in South Africa after Ten Years of Democracy." *European Journal of Psychology of Education* 21 (3): 253–264. doi:<https://doi.org/10.1007/BF03173414>
- Gleason, J. (2011). Multicultural and exceptional student education. Separate but equal? *Preventing School Failure*, 36(1), 47-4
- Gollnick, D.M. & Chinn, P.C. (2010). *Multicultural education in a pluralistic society*. Columbus, OH: Charles E. Merrill.
- Greig, A., & Taylor, J. (2009). *Doing research with children*. London: Sage.
- Klonis, S. C., Plant, E. A., & Devine, P. G. (2005). Internal and external motivation to respond without sexism. *Personality and Social Psychology Bulletin*, 31(9), 1237–1249. DOI: <https://doi.org/10.1177/0146167205275304>
- Major, B., & Sawyer, P. J. (2009). Attributions to discrimination: Antecedents and consequences. In T. D. Nelson (Ed.), *Handbook of Prejudice, Stereotyping, and Discrimination* (pp. 89–110). Psychology Press. DOI: <https://doi.org/10.1016/j.drugalcdep.2011.03.027>
- Mbiti, J. S. (1969). *African Religion and Philosophy*. Nairobi: Heinemann. [Google Scholar]
- Meltz, T. (2011). "Ubuntu as a Moral Theory and Human Rights in South Africa." *African Human Rights Law Journal* 11 (2): 532–559. [Google Scholar]
- Monteith, M. J., & Walters, G. L. (1998). Egalitarianism, Moral Obligation, and Prejudice-Related Personal Standards. *Personality and Social Psychology Bulletin*, 24(2), 186–199. DOI: <https://doi.org/10.1177/0146167298242007>

- Phasha, N. (2016). "Understanding Inclusive Education from an Afrocentric Perspective." In *Inclusive Education: An African Perspective*, edited by N. Phasha and J. Condy, 3–28. Cape Town: Oxford. [Google Scholar]
- Pine, G. & Hilliard, A., (2010). Rx for racism: Imperatives for America's schools. *Phi Delta Kappan*, 71, 593-600.
- Plant, E. A., & Devine, P. G. (2008). Internal and External Motivation to Respond Without Prejudice. *Journal of Personality and Social Psychology*, 75(3), 811–832. DOI: <https://doi.org/10.1037/0022-3514.75.3.811>
- Reviere, R. (2011). Rethinking Open and Distance Education Practices: Unearthing Subjectivities and Barriers to Learning. Retrieved from <http://www.col.org> on 15 September 2022.
- Roy, D. (2019). Children with disabilities are being excluded from education. Retrieved from <http://theconversation.com/children-with-disability-are-being-excluded-from-education-59825>
- Shockley, K.G. 2011. Reaching African American students: Profile of an Afrocentric teacher. *Journal of Black Studies*. 42(7):1027–1046. Retrieved from <http://jbs.sagepub.com/content/42/7/1027> on 23 May 2022.
- SA DoE (South Africa Department of Education). 2001. *Education White Paper 6. Special Needs Education: Building an Inclusive Education and Training System*. Pretoria. https://www.gov.za/sites/default/files/gcis_document/201409/educ61.pdf.
- Whalen, C., Henker, B., Dotemoto, S. & Hinshaw, S. (2003). Child and adolescent perceptions of normal and atypical peers. *Child Development*, 54, 1588-159

VOCATIONAL EDUCATION

TOWARDS EMPOWERING TECHNICAL VOCATIONAL EDUCATION AND TRAINING (TVET) YOUTHS THROUGH ENTREPRENEURSHIP EDUCATION FOR SUSTAINABLE DEVELOPMENT IN LAGOS STATE, NIGERIA

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Abstract

This study was carried out to determine ways towards empowering technical vocational education and training (TVET) youths through entrepreneurship education as the heart of sustainable development in Nigeria. The study employed a descriptive survey design. Three research questions were raised to guide the study. The population of the study consisted of all the facilitators of TVET and Experts of entrepreneurship education studies of the federal and state tertiary institutions in all the 20 Local Government Areas of Lagos State, Nigeria. A proportionate stratified random sampling technique was employed in selecting 115 respondents, made up of 68 facilitators of TVET and 57 experts of entrepreneurship education studies from three federal and three state tertiary institutions in three Local Government Areas of Lagos State, Nigeria. Empowering TVET Youths through Entrepreneurship Education Questionnaire (ETVETYEEQ) that addressed the research questions was used as an instrument for data collection. The ETVETYEEQ was face validated by three experts. Cronbach Alpha reliability method was used to determine the internal consistency of the ETVETYEEQ items, while a co-efficient of 0.84 was obtained. Data were analysed using Mean and Standard Deviation. The findings of the study revealed 11 prospects, 11 challenges and 14 strategies of empowering TVET youths through entrepreneurship education. It was recommended that the TVET facilitators should be re-trained through organized entrepreneurship education and Multinational companies/public liabilities companies should support TVET programmes by providing training infrastructure and awarding a scholarship to TVET youths for sustainable development in Lagos State, Nigeria.

Keywords: Empowerment, Entrepreneurship Education, Sustainable development, TVET, Youths.

Introduction

Nigeria is the most populated black nation in Africa, eight in the world with a population of over 220 million people and has a nominal Gross Domestic Product (GDP) of \$ 375.75 billion and is equivalent to 2.64% of the total world population (Worldmeter, 2023). According to Akpoveta and Agbomah (2009), it was estimated that about 4.5 million educated youths leave the Nigeria tertiary institutions entering the labour market annually, with little hope of securing viable jobs. The authors asserted that the increasing incidence of poverty and youths' unemployment in Nigeria has been associated with existing

weaknesses in the nations' educational system, which place more emphasis on theoretical contents than functional Technical Vocational Education and Training (TVET). Rojewski, Asunda and Kim (2008) asserted that TVET is aimed at developing human resources and facilitates the transition of a nation to a more sustainable economy development. Unlike general education, TVET in the study of Shobowale, Oladipo, Ukeamezhim, and Akinyemi (2021) is centred on 'applied' as opposed to 'academic', practical as opposed to theory, and skills as opposed to knowledge. Osuala (2010) argued that the primary objectives of TVET are towards empowering the 21st century youths for the labour market and aimed at developing private business ownership entrepreneurially.

The dawn of 21st century TVET as observed by Nwangwu (2006) has witnessed tremendous efforts by countries of the world towards actualisation of status quo of one of the world leading economies. This has triggered several reforms in the education sector, targeted towards high skilled human capital development to serve as drivers of socioeconomic development in the country, through entrepreneurship education practices.

Entrepreneurship in the view of Cronje, Du Toit, Marais and Motlatla (2004) is the process of mobilising and risking resources (land, capital, human resources) in such a way that the needs of society for products and services are satisfied and jobs are created using appropriate skills. Okoye and Okwelle (2013) stated that education is considered as an agent of human development, social mobility and socio-economic development of any society. Oguegbune and Ugbe (2008) posited that entrepreneurship education is a process of exposing learners to the essential skills for effective development and management of an enterprise at any level. Similarly, Paul (2005) identified the objectives of entrepreneurship education to include offering functional education for the youth that will enable them to be self-employed; serving as a catalyst for economic growth and development; reducing high rate of poverty; inculcate the spirit of perseverance in the youths, which will enable youths to persist in any business venture they embark upon.

Youths in every society form a significant segment that cannot be ignored. Youths are the bedrock on which every nation's development thrives. Youths are the most active and most energetic group of the country's population in whose hand lays the destiny of the nation, within the age bracket of 18-35 years of age (Ojaleye, 2005). This may equally vary from country to country. Despite these positive attributes, youths are arguably according to Del-Tumi (2011) as the most vulnerable, most deprived, most marginalised and mostly exploited particularly by politicians in the society. Therefore, youths are considered to be empowered to make informed decisions about their life.

James (2008) refers to empowerment as the process of strengthening the existing capacities and capabilities of individuals in the society to enable them perform towards improving themselves and the society as at large. The author stated that empowerment is based on the idea that giving individual skills, authority, opportunity, motivation, as well as holding them responsible and accountable for outcome of their actions. With reference to this study, empowerment is the process of equipping TVET youths with relevant knowledge, abilities, competence and skills that will make them be able to take effective control of their well-being and become useful to the society.

Del-Tumi (2011) noted that youths are empowered when they acknowledge that they can create choices of life, aware of the implications of these choices, make informed decisions and accept responsibility for the consequences of life actions. It implies providing an enabling environment for young people to develop their true potentials so that they can contribute to the development of the society. Youth empowerment in the opinion of Umezulike (2020) aims to improve quality of life through participation in youth programmes. The eight interdependent dimensions of youth empowerment in the opinion of Umezulike include educational empowerment; psychological empowerment; community empowerment; organizational empowerment; economic empowerment; political empowerment; social empowerment; cultural empowerment.

The objectives of youth empowerment according to Botswana Core Welfare Indicators Survey (2010) include developing good work ethic; gaining entrepreneurship experience; attaining employment readiness; developing skills and competencies that will enable them to make positive contribution to the development of their communities and fostering the development of behavioural change. Youth empowerments within the context of this study is the act of equipping the TVET youths through entrepreneurship education to initiative and explore appropriate prospects ideas that could improve economic and productive prospects for prospective self-employment opportunities.

Prospects are advanced realization of success and benefits to increased self-reliance of an individual to discover and create needed goods and services in the society. Oviawe (2010) argued that the prospects of empowering youths through education increased self-esteem of the graduate; improving the economy of the society; and reduction of poverty in the society. In this study, prospects are advanced realization of success and benefits to increased self-reliance of entrepreneurship education youth's positive self-image, to secure financial assistance from sponsors; create and exploiting business opportunities needs of the society; alleviation of poverty as a result of unemployment; and become self-employed. In spite the numerous prospects of empowering TVET youths through entrepreneurship education; it is still faced with a lot of challenges.

A challenge is a situation of being faced with difficult tasks that needs great mental or physical efforts in order to be done successfully. Daramola (2005) noted that a challenge is a mismatch between acquired skills and market needs, widespread concern about poor quality training environments and negative public perceptions regarding technical education. Challenges of empowering students of TVET according to the Okoye and Okwelle include inadequate funding; inadequate infrastructures; shortage of qualified instructors; poor supervision of TVET education programmes; lack of modern facilities; and poor facilitators' motivation. In this study, a challenge is a situation of being faced by youths with difficult tasks that needs great mental or physical efforts about poor quality training environments and negative public perceptions regarding entrepreneurship education. Therefore, from fore-going, it becomes necessary to adequately device strategies towards empowerment TVET youths through entrepreneurship education in the country to meet up with operational challenges.

Strategies to alliterative the challenges of youth empowerment through woodwork technology education will help to providing small business opportunities, where interested students on school based enterprise can participate to plans, create and operate small and

medium scale enterprise. Shobowale (2015) posited that strategy is a pattern in a stream of decisions that guides an organization’s ongoing alignment with its environment and shapes internal policies and procedures. Strategy is the direction and scope of an organization over the long-term, which achieves advantage for the organization through its configuration of resources within a challenging environment to meet the needs of markets and to fulfill stakeholder expectations. Dokubo (2017) observed that all the stakeholders in TVET and entrepreneurship education programmes must corporate together with TVET production industries and facilitators in order to expand youth trades training surroundings. However, strategies are methods and blue print worked out in advance to boost the TVET youths’ interest in enhancing economic and productivity skills through entrepreneurship education for sustainable development (SD).

Sustainability is the efficient and equitable distribution of resources with the operation of socio-economic activities within the confines of a finite ecosystem (Stoddart, 2011). Sustainable TVET youth empowerment provide with economic and productive skill opportunities for social equity, economic and environment development. Todaro (2016) asserted that development can be seen as an increase in living conditions, improvement of the self-esteem needs and a free and just society.

Chikwelu and Arinze (2009) posited that SD is any form of developmental strives of the people, government that are enduring, meeting needs of the present people and the future generations. SD is geared towards enhancing the citizens’ job creation, poverty reduction, nature preservation, and technological advancement. The three fundamental and interconnected domains or pillars of sustainability described the relationships among the economic, social and environmental aspects of SD, which according to Parkita (2019) as captured in Figure 1.

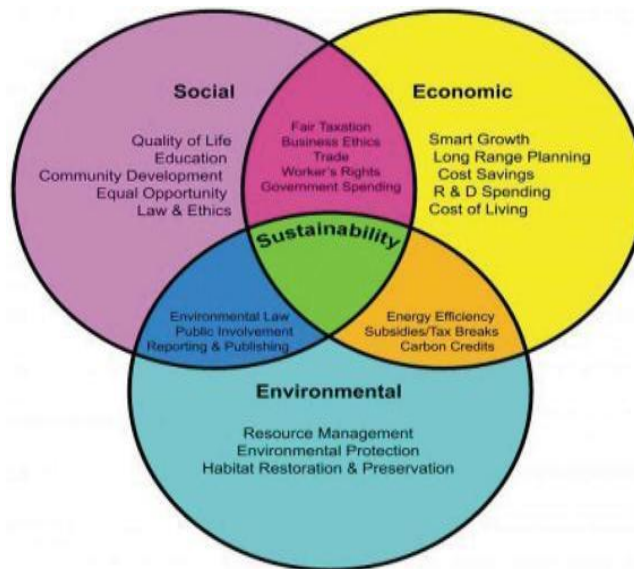


Figure 1: Relationships among the social, economy and environment of SD (Parkita, 2019)

Operationally, a visionary and forward looking SD paradigm emphasised on a positive transformation trajectory, which is fundamentally rests on three conceptual pillars. These pillars according to Parkita include:

Economic sustainability:-This implies that macro-economic and financial stability, as well as the prevention of balance-of-payments crises are a basic requirement for sustained economic development. This implies that human and financial resources must be used in a way that ensures continuous and lasting improvements in the standards of living.

Social sustainability:-This explains that peace; social justice and inclusiveness are indispensable for sustained social progress and lasting development. Social disruption resulting from excessive discrepancies in the standards of living of different segments of the population-including poverty and all its symptoms-could eventually bring economic progress to a halt and jeopardize the quality of the natural environment.

Environmental sustainability:-This implies that the quality and protection of the natural environment, as well as successful adaptation to climate change, influence the scope for long-term social progress and economic development. Environmental degradation, waste of non-renewable natural resources and the various impacts of climate change have a direct effect on living conditions towards high level of viable living, self-esteem and economic freedom.

Statement of the Problem

The increasing rates of unemployment with the high incidence of economic degradation have necessitated the need to empower TVET youths through entrepreneurship education for job creation and sustainable development of Nigerian economy (Edokpolor & Owenvbiugie, 2017). Unemployment is persistent because the TVET youths on graduation appear to lack entrepreneurship education orientation needed by the employers of labour and for self-employment. Observations also revealed that TVET and entrepreneurship education programmes aimed at reducing poverty and high rate of unemployment in the society. This is because these youths on graduation will be able to set-up and flourish in their various enterprises, which also requires re-training of TVET facilitators to acquaint with the emergent trends in the world of work opportunities on the need of market, thereby, reducing the rate of youth unemployment in the society. Despite the numerous prospects of empowering TVET youths through entrepreneurship education on graduation, TVET youths' find it difficult to establish and run a viable enterprise successfully. Consequently, many youths on graduation seem drooping their enterprise and resort to commercial bus conducting, internet fraudster, hoodlums, banditry, political thugs, among others, to meet their daily needs. This therefore, bring to the fore to examined the prospects, challenges and strategies towards empowering TVET youths through entrepreneurship education for sustainable development Lagos State, Nigeria.

Research Questions

Based on the purpose of the study, the following research questions were raised:

1. What are the prospects of empowering TVET youths through entrepreneurship education for sustainable development?

2. What are the challenges of empowering TVET youths through entrepreneurship education for sustainable development?
3. What are the strategies of empowering TVET youths through entrepreneurship education for sustainable development?

Methodology

The study adopted descriptive survey research design. The study was carried out in Lagos State, south western of Nigeria. The population of the study consisted of all the facilitators of TVET and experts of entrepreneurship education studies from all the federal and state tertiary institutions in all the 20 Local Government Areas of Lagos State, Nigeria. Proportionate stratified random sampling technique was employed in selecting 115 respondents, made up of 68 facilitators of TVET and 57 experts of entrepreneurship education studies from six federal and state tertiary institutions in three Local Government Areas of Lagos State, Nigeria. A self-structured questionnaire titled: Empowering TVET Youths through Entrepreneurship Education Questionnaire (ETVETYEEQ) that addressed the research questions was used as instrument for data collection with a 5-point Likert scale of Strongly Agree (SA) Agree (A) Undecided (UD) Disagree (D) and Strongly Disagree (SD) with the assigned scores of 5, 4, 3, 2, and 1 respectively. The ETVETYEEQ was face validated by three experts: two TVET facilitators and one expert of entrepreneurship education studies from the University of Lagos, Nigeria. Cronbach Alpha analysis was used to determine the internal constituency of the ETVETYEEQ items and reliability coefficient of 0.84 was obtained. All the 115 copies of the instrument were administered to the respondents with the help of three research assistants. The entire instrument retrieved were fully filled and returned by the respondents, and the returned rate was a 100%. The data collected was statically analysed using *Mean* and *Standard Deviation*. Any item with *Mean* score of 3.50 and above was regarded as **Agreed**, while any item with *Mean* score below 3.50 was regarded as **Disagreed**.

Results

Research Question1: What are the prospects of empowering TVET youths through entrepreneurship education for sustainable development?

Table 1

Mean and Standard Deviation on Prospects of Empowering TVET Youths through Entrepreneurship Education for Sustainable Development.

		n=115		
S/N	Prospects of TVET Youth Empowerment through Entrepreneurship Education	\bar{x}	SD	Remarks
1.	Transform indigenous economic and production industries and technologies.	4.21	0.83	Agreed
2.	Form the foundation of TVET industrial activities of a nation.	4.10	0.88	Agreed
3.	Help to boost the nation economy by growing her gross domestic products (GDP).	4.17	0.75	Agreed
4.	Enable TVET youths to create jobs, self-employed and employ others.	4.06	0.80	Agreed
5.	Enable TVET youths to secure financial assistance from sponsors.	4.06	0.80	Agreed

6.	Translate TVET creative skills into productive goods and services economically.	4.04	0.98	Agreed
7.	Increase TVET youths positive self-image and overcoming stigma.	4.23	0.85	Agreed
8.	Help to alleviate poverty among TVET youths as a result of unemployment.	4.26	0.75	Agreed
9.	Enable TVET youths to exploit business opportunities needs of the society	4.11	0.77	Agreed
10.	Reduce unemployment and hoodlums among TVET youths in the society.	4.04	0.98	Agreed
11.	Promote economic and productivity for sustainable development of a nation.	4.21	0.83	Agreed

The data analysis presented in Table 1 showed that all 11 items had their *Mean* values above 3.50. The *Mean* values of the items ranged from 4.04 to 4.26, while the *Standard Deviation* ranged from 0.98 and 0.75 showing closeness in opinions of the respondents. This implies that the respondents agreed to all the items as prospects of empowering TVET youths through entrepreneurship education for sustainable development.

Research Question 2: What are the challenges of empowering TVET youths through entrepreneurship education for sustainable development?

Table 2: Mean and Standard Deviation on Challenges of Empowering TVET Youths through Entrepreneurship Education for Sustainable Development.
n=115

S/N	Challenges of TVET Youth Empowerment through Entrepreneurship Education	\bar{x}	SD	Remarks
1.	Inadequate funding of TVET programmes for economic and production projects.	4.06	0.83	Agreed
2.	Low level of TVET programmes towards entrepreneurship education development.	4.22	0.85	Agreed
3.	Misconception values placed on TVET by the society.	4.15	0.88	Agreed
4.	Inadequate TVET facilitators for youth entrepreneurship education empowerment.	4.03	0.91	Agreed
5.	Lack of innovative-entrepreneurship facilities for TVET programmes.	4.13	0.87	Agreed
6.	Mismanagement of TVET resources for youth entrepreneurship programmes.	4.05	0.94	Agreed
7.	Inability to engage experts to boost TVET youths' interest for self-employment	4.13	0.90	Agreed
8.	Lack of re-training of facilitators with current trend in entrepreneurship education.	4.05	1.02	Agreed
9.	Lack of support for TVET youths to go on entrepreneurship field-trips.	4.06	0.83	Agreed
10.	Lack of quality economic and productive activities to the needs of TVET youths.	4.22	0.85	Agreed
11.	Lack of project production consultancy services to the needs of TVET youths.	4.15	0.88	Agreed

The data in Table 2 indicated 11 items with their *Mean* values above 3.50. The *Mean* values of the items ranged from 4.03 to 4.22, while the *Standard Deviation* ranged from 0.91 and 0.85 showing closeness in the opinions of the respondents. This indicated that all the items were agreed upon as challenges of empowering TVET youths through entrepreneurship education for sustainable development.

Research Question 3: What are the strategies of empowering TVET youths through entrepreneurship education for sustainable development?

Table 3

Mean and Standard Deviation on Strategies of Empowering TVET Youths through Entrepreneurship Education for Sustainable Development. N=115

S/N	Strategies of TVET Youth Empowerment through Entrepreneurship Education	\bar{x}	SD	Remarks
1.	Encourage partnership with local TVET trades industries.	4.15	0.91	Agreed
2.	Cultivate the spirit of entrepreneurship skills to TVET youths.	4.09	0.95	Agreed
3.	Adopt products and service-learning approaches for TVET youths.	4.22	0.68	Agreed
4.	Employ traits approaches to facilitate entrepreneurship education in TVET	3.58	0.69	Agreed
5.	Restructure TVET curriculum to entrepreneurship project-based learning.	4.19	0.93	Agreed
6.	Re-training of facilitators with current trend in entrepreneurship job market.	4.35	0.90	Agreed
7.	Effective management of TVET programmes to attract interested youths.	4.39	0.79	Agreed
8.	Incorporate entrepreneurship contents align with market products and service needs.	4.37	0.76	Agreed
9.	Appointed experienced administrators to manage of TVET programmes	4.37	0.76	Agreed
10.	Engage experts to boost the youths' interest in becoming self-employed.	4.22	0.87	Agreed
11.	Improve the good image of TVET through entrepreneurship education.	4.22	0.89	Agreed
12.	Promote in house TVET enterprise empowerment for career advancement.	4.24	0.76	Agreed
13.	Encourage collaboration among TVET and entrepreneurship education facilitators.	4.18	0.91	Agreed
14.	Encourage TVET youths towards entrepreneurial activities on the need of market.	4.27	0.81	Agreed

Data presented in Table 3 above revealed 14 items that had their *Mean* values above 3.50. The *Mean* values of the items ranged from 3.58 to 4.39, while the *Standard Deviation* ranged from 0.69 and 0.79 showing closeness in opinions of the respondents. The items were therefore, found appropriate as strategies of empowering TVET youths through entrepreneurship education for sustainable development.

Discussions of Findings

The results in Table 1 indicated 11item prospects of empowering TVET youths through entrepreneurship education for sustainable development. The prospects include transforming indigenous economic and production industries and technologies; forming the foundation of TVET industrial activities of a nation; helping to boost the nation economy by growing her gross domestic products (GDP); enabling TVET youths to be self-employed; among others. These are in agreement with view of Botswana Core Welfare Indicators Survey (2010) which emphasised that youths can be empowered through life skills and attachment to local public and private industrial projects. This finding also in line with the work of Oviawe (2010) who argued that the prospects of empowering youths through entrepreneurship education increased self-esteem of the graduate; improving the economy of the society; and reduction of poverty in the society. The findings and the opinions of authors above helped to justify the findings of this study on the prospects of empowering TVET youths through entrepreneurship education for sustainable development.

The results of the findings in Table 2 disclosed that all the 11 items were agreed upon as challenges of empowering TVET youths through entrepreneurship education for sustainable development. The challenges include inadequate funding of TVET programmes for economic and production projects; low level of TVET programme towards entrepreneurship development; misconception values placed on TVET by the society; among others. These are in agreement with the opinion of Daramola (2005) that challenges are mismatch between acquired skills and market needs, widespread concern about poor quality training environments and negative public perceptions regarding TVET. The findings also agreed with the report of Okoye and Okwelle (2013) that challenges of empowering students include inadequate funding of TVET programmes; poor power supply; shortage of qualified TVET facilitators; poor supervision of TVET programmes; lack of modern facilities: among others. The findings and the views of authors above helped to add value to the findings of this study on the challenges of empowering TVET youths through entrepreneurship education for sustainable development.

The findings of the study in Table 3 revealed the 14 item strategies of empowering TVET youths through entrepreneurship education for sustainable development. The strategies include encouraging partnership with local TVET trades industries; cultivating the spirit of entrepreneurship skills to TVET youths; adopting products and service-learning approaches for TVET youths; among others. The findings agreed with the argument of Shobowale (2015) that strategy is a pattern in a stream of decisions that guides an organization's ongoing alignment with its environment and shapes internal policies and procedures. The findings were also in consonance with the view of Chinedu and Olabiyi (2015) that qualified instructors and trainers should be recruited to ensure that up-to-date contents are taught to youths who participate in TVET empowerment programmes. The findings and agreement of authors above gave credence to the result of the present study on strategies of empowering TVET youths through entrepreneurship education for sustainable development.

Conclusion

Based on the findings of the study, it was established that TVET youth empowerment through entrepreneurship education is at the heart of sustainable development and only those nations that continue to invest in empowering their youths and talented workforce will reduce the level of poverty, unemployment and hoodlums in the society. TVET youth empowerment through entrepreneurship education will boost the youth's interest in becoming self-employed; translate TVET innovative skills into goods and services locally. Also, forms the foundation of TVET industrial activities of a nation for achieving sustainable development. Consequently, TVET and entrepreneurship TVET remains a vital ingredient for sustainable development in Lagos State, Nigeria.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. TVET facilitators should be re-trained through organized entrepreneurship education seminars and workshops orientations for sustainable development.
2. Adequate funding of TVET through entrepreneurship public and private sector partnership for sustainable development.

3. Adequate engagement with entrepreneurs as mentors to boost TVET youths interest to become self-employed for sustainable development.

References

- Akpoveta, B. E., & Agbomah, D. (2009). Entrepreneurship development and skill acquisition schemes as tools for youth self-employment, economic empowerment and national development. *Journal of Industrial and Technological Research*, 6(2), 3-11.
- Botswana Core Welfare Indicators Survey (2010). *Enumerator's manual*. Gaborone.
- Chikwelu, V. N. & Arinze, F. O. (2009). Women empowerment through education for sustainable development: An overview of the socio-cultural constraints in Nigeria. *Nigeria Journal of Politics and Administration*, 2(1), 96-106.
- Chinedu, C. C., & Olabiyi O. S. (2015). Empowering Nigerian youths through technical vocational education and training for enhancing national security. *Journal of Technical Education and Training*: 7(1), 10 10-22.
- Cronje, G. J., Du Toit, G. S., & Motlatla, M. D. C. (2004). *Introduction to business management*. Cape Town: Oxford University Press, Southern Africa.
- Daramola, I. S. (2005). Functionality of polytechnic education as a tool for enhancing skill acquisition of youths. *Nigerian Association of Teachers of Technology 18th Annual Conference*. Rivers.
- Dei-Tumi, J. (2011). National youth entrepreneurship policy in Ghana speech delivered during a workshop organized. *Institute of Continuing and Distance Education*, University of Ghana.
- Dokubo, I. N. (2017). Technical vocational education and training in south -south, Nigeria: A veritable tool for sustainable economic growth. *International Journal of research ranthaalayah*, 5, (5), 34-41.
- Edokpolor, J. E., & Owenvbiugie, R. O. (2017). Technical and vocational education and training skills: an antidote for job creation and sustainable development of Nigerian economy. *Problems of Education in the 21st Century*, 75(6), 535-549.
- James, O. (2008). Education as a catalyst for women empowerment in Nigeria. *Journal of Educational Management*, 5 & 6, 16-23.
- Nwangwu, I. O. (2006). *Fundamentals of entrepreneurship in educational management*. Enugu: Cheston Agency.

- Oguegbune, O. & Ugbe, L. (2008). Nigerian higher education and the entrepreneurship education question. *Journal of Education Innovators*, 3(1), 39-54.
- Ojaleye, O.A. (2005) *Re- appraisal values and attitudes in home: Challenges for women in youth development*. Conference paper presented at Abuja during the 10th National Conference and Anniversary on 15th-18th November.
- Okoye, K. R. E., & Okwelle, P. C. (2013). Technical and vocational education and training (TVET) in Nigeria and energy development, marketing and national transformation. *Journal of Education Practice*, 4(14), 134-138.
- Osuala E. C. (2010). *Principles and methods of business and computer education*. Enugu: Cheston Agency Ltd Pub.
- Oviawe (2010) Oviawe, J. I. (2010). Repositioning Nigerian youths for economic empowerment through entrepreneurship education. *European Journal of Educational Studies*. 2(2), 94-101.
- Prakati (2019). *What is sustainability? Concept, meaning and definition*. <http://www.prakati.in/what-is-sustainability-concept-meaning-and-definition/>
- Paul, E.O. (2005). *Entrepreneurship education*. In Ezema Priscilla N, Paul Elizabeth O.; Anioke
- Rojewski, J. W., Asunda, P., & Kim, S. J. (2008). Trends in career and technical education research. *Journal of Career and Technical Education*, 24 (2), 57-68.
- Shobowale, I. O. (2015). *Development of entrepreneurship skills training module in upholstery and furniture-making for improvement of craftsmen in Lagos State, Nigeria*. (Doctoral dissertation). University of Nigeria, Nsukka.
- Shobowale, I. O, Oladipo, S. A., Ukeamezhim, C. F., & Akinyemi, M. A. (2021). Technical and vocational education and training (TVET) through public and private sectors partnership (PPPs) for youth unemployment and sustainable development. *Education in a Rapidly Changing World*. Published by University of Lagos Press and Bookshop Ltd. 335-351.
- Stoddart, H. (2011). *A Pocket guide to sustainable development governance*. Stakeholder Forum.
- Todaro, M. (2016). *Economic development*. <http://www.whatisconomics.org/economicdevelopment>.
- Umezulike, R. E. (2020). Youth empowerment as a veritable instrument for sustainable national development: implications for counselling. *South Eastern Journal of Research and Sustainable Development (SEJRSD)*. 3 (1), 14-35.
- Worldometers (2023). Population of Nigeria. <http://www.worldometers.info/world-population/nigeria-population>.

ENTREPRENEURIAL EDUCATION AND ENTREPRENEURIAL MINDSET AMONG STUDENTS OF OSUN STATE COLLEGE OF EDUCATION, ILESA

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Abstract

This study is premised to ascertain the relationship between entrepreneurial education and entrepreneurial mindset among the Degree students of Osun State College of Education Ilesa. The population of this study comprised of two hundred and seventy (270) final-year degree students in the College. The sample size for this study comprised one hundred and sixty-one (161) respondents who are graduating this academic session (2021/2022). The questionnaire was adopted for data collection. Regression Analysis was the statistical tool that was used for the data Analysis. Three null hypotheses were set for the study. Two of the hypotheses which stated that there was no relationship between Entrepreneurship Education and personal attitudes, and perceived behavioural control which were constituents of entrepreneurial mindset were rejected and the alternative hypotheses which stated that there were relationships were based on decision rule that specified, rejected (H_0 if $p < 0.05$) null hypotheses if p-value is less than 0.05 and accept if otherwise. However, the other hypothesis which stated that there was no significant relationship between entrepreneurship education and subjective normative, a constituent of entrepreneurial mindset was accepted and the alternative was rejected based on the same decision rule. Findings revealed that the higher the personal attitude and perceived behavioural control, the higher the mindset to be involved in entrepreneurship after graduation. The findings further showed that students who had gone through entrepreneurship education will have the mindset to start their own businesses. The study concluded that Entrepreneurship Education promotes an Entrepreneurial mindset.

Introduction

The concept of entrepreneurship has become vital as a result of constant and increasing problems especially unemployment (Garcia-Rodriguez, et al 2017). Entrepreneurship is rapidly gaining prominence worldwide as many agencies in both industrialized and emerging nations see entrepreneurship as a catalyst that creates wealth and generates economic growth and development (Keilbach, Tamuada, Audietsch (2008). The rationale for this assumption is the fact that entrepreneurship activities contribute immensely to the socio-economic development of the society as it affords individuals the opportunity to create value for society and generate employment for themselves and others (Ibitomi & Adeleke; 2020).

Entrepreneurship education has grown rapidly in tertiary institutions around the world (Fretschener & Weber, 2013). According to Fretschener & Weber (2013), the main objective of entrepreneurship education in tertiary institutions is to empower graduates irrespective of their course of study with skills that will provide them the opportunity to engage in income-yielding business, whether they are able or not able to secure paid employment whether in the public or private sector. The main purpose of introducing Entrepreneurial Education into tertiary institutions is to produce graduates with entrepreneurial skills needed in the private sector, also start their businesses and consequently employ others (Aladejebi, 2018).

Entrepreneurship is the act of creating business and growing business (Obi, 2018). It is seen as an important tool for transforming the economy stimulating development, creation of jobs and wealth and promotes the general economy Obenibe, Tesile and Ukpong, (2014). It must be stated that without an entrepreneur, there cannot be entrepreneurship; this is why an understanding of the mindset of an entrepreneur is crucial to understanding how to develop and launch successful ventures. Hence, the entrepreneurial mindset is a function of achievement, individualism, control, focus and optimism. It is pertinent to explain what mindset is before looking at entrepreneurial mindset. A mindset is defined by Merriam-Webster as a “mental attitude or inclination.” As further elaborated upon by Thum (2012:3):

Your mindset is the sum of your knowledge, including beliefs and thoughts about the world and yourself in it. It is your filter for information you get in and put out. So it determines how you receive and react to information. Mindset means mental attitude or inclination. Thus, while our mindsets can be shaped by an intentional awareness, they are also largely driven by our experiences and what we are (intentionally or unintentionally) exposed to. (Thum, 2012).

The Entrepreneurial mindset is therefore the inclination of the entrepreneur to discover, evaluate and exploit opportunities. (Bosman & Fernhaber 2018).

Statement of the Problem

It is a known fact that Nigeria is experiencing unemployment, particularly among the youth's graduates. Viatona, Muse, Suluka, 2018; Oluwatoyin, Bawalla and Muraina (2019) maintained that unemployment has been regarded as the bane to the nation's development and it has continued to be a premise upon which the country has been ranked very low in the ranking of the comity of nations in several socio-economic indices.

In order to ameliorate the low productivity, high inflation and widespread poverty in Nigeria, the government introduced policy trusts and programmes to promote skills and acquisition, facilitate the spirit of creativity, self-reliance and self-independence (Agbim, Oriarewo & Owocho, 2013), National Economic Empowerment and Development Strategies (NEEDS), National Poverty Eradication Programme (NAPEP), Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) and the New Partnership for Africa's Development (NAPAD). However all these efforts could not yield fruitful effort because these short-term entrepreneurial activities were grossly inadequate to provide required entrepreneurial training for the general millions of unemployed youths.

The failure of short-term entrepreneurial training led to the consideration of introducing entrepreneurship education into the Nigeria educational system.

Further effort was made to ensure that students from diverse socio-economic background imbibe the concept of entrepreneurship to generate quantum number of business entrepreneurial ideas and enterprises. If all the concerted efforts of the government will bring a fruitful result, there must be a synergy between entrepreneurship education and entrepreneurial mindset. To this end, there is a need to evaluate the impact of entrepreneurship education and career guidance on the entrepreneurial mindset of students.

Research Objectives

The objectives of this research are to:

- i. Examine the relationship between Entrepreneurship education and the personal attitudes of students towards an entrepreneurial mindset.
- ii. Investigate whether there are relationships btw Entrepreneurship education and students subjective normative pressures towards an entrepreneurial mindset
- iii. Examine whether there are relationships btw Entrepreneurship education and students' perceived behaviour control towards entrepreneurial mindset.

Research Questions

The following research questions will guide the conduct of the study;

- 1) What is the relationship between Entrepreneurship education and personal attitudes of students towards an entrepreneurial mindset
- 2) Are there relationships between Entrepreneurship education and students' subjective normative pressures towards an entrepreneurial mindset?
- 3) Are there relationships between Entrepreneurship education and students perceived behaviour control?

Research Hypotheses

- H1: There is no significant relationship between Entrepreneurship education and students' attitudes towards an entrepreneurial mindset
- H2: There is no significant relationship between Entrepreneurship education and students' subjective normative pressures towards an entrepreneurial mindset
- H3: There is no significant relationship between Entrepreneurship education and students' perceived behaviour control towards an entrepreneurial mindset.

Scope of Study

The scope of this study is limited to the graduating degree students of Osun State College of Education, Ilesa. Therefore, the study focused on some selected schools and departments in the College. The justification for the limitation is to allow easy access to those students at the brim of graduation who may be contemplating what to do after graduation.

Conceptual Review

Concept of Entrepreneurship Education

Entrepreneurship education has grown rapidly in tertiary institutions around the world (Fretschener & Weber, 2013). According to Fretschener and Weber (2013), the main objective of entrepreneurship education in tertiary institutions is to empower graduates irrespective of their course of study with skills that will provide them with the opportunity to engage in income yielding business, whether they are able or not able to secure paid employment either in public or private sector. The main purpose of introducing Entrepreneurial Education into tertiary institutions is to provide graduates with entrepreneurial skills needed in the private sector, also start their businesses and consequently employ others (Aladejebi, 2018). Quality Assurance (QAA) for Higher Education (UK, 2012), define entrepreneurship education as the process of equipping students (or graduates) with an enhanced capacity to generate ideas and the skills to make them happen.

Entrepreneurship Education

Entrepreneurship Education refers to the training given to an individual regarding entrepreneurship. (Samsudeen, Liman & Haruna, 2017). According to Ediagibonya (2013), *Entrepreneurship education is a skill and or knowledge that an individual possesses in a given field over a period of time*. Supporting the claim of Ediagibonya, Fatoki (2012) explains that entrepreneurship education is a type of training which help participants in developing their entrepreneurial attributes by supporting them with services, to successfully embark into new ventures.

Entrepreneurship Education has to do with encouraging and inspiring children, youths and elders on how to be independent both in thinking and creativity in business (Mandara 2012) Mohammed, Aliyu and Ahmed (2013) considered entrepreneurship as an engine growth for economic development in the developed, emerging and developing economies.

Okereke (2019) maintains that entrepreneurship is a dynamic process of vision, change and venture creation. It requires the application of energy and passion towards the creation and implementation of new ideas and creative solutions. It involves the use of individual abilities, money and other assets to achieve profitability and sustainability of the business venture (Smith & Chimucheka, 2014).

Review of Educational Policies and Entrepreneurship Education in Nigeria

In the post-colonial era, the Nigerian economy began to nose-dive and this led to the creation of Nigerian Agricultural and Cooperative Banks (NACB) and Nigerian Industrial Bank (NIB), Nigeria Export Promotion Council, National Directorate of Employment as forms of Entrepreneurship Development (Chete, Adeoti, Adeyinka & Ogundele, 2014). The failure of British bookish non-functional educational system lacking entrepreneurship education led to enacting educational policies that have a toga of entrepreneurship education. To foster better clarification, three notable entrepreneurship developmental policies will be concisely considered as follows:

National Policy on Education (1981)

This educational policy was introduced in the realization of the realities of deficient British educational policy engendering inadequate job opportunities for millions of Nigerian graduates by employing self-employment initiatives (Ogedengbe et al; 2013).

However this National Policy on Education was condemned for its focus on just the primary and post-primary aspects of Education. Its failure led to introduction of another policy that would encourage practical and vocational studies aspect of Education (Okolocha, 2012).

National Policy on Education (2004)

This educational policy places emphasis on the practical and vocational aspects of education that were lacking in the previous educational policy. In this policy, the Federal and State Governments place much premium on establishing different institutions that offered programmes that led to the acquisition of practical skills and applied skills (Ogedengbe et al, 2013). In the policy however, entrepreneurship subjects were not specified both at the secondary level and tertiary institutions. That was the failure of the National Policy on Education (2004) as far as entrepreneurship education is concerned.

National Policy on Education (2014)

This seems to be the latest educational policy with greater emphasis on the entrepreneurial education as subjects numbering 34 trades and entrepreneurship subjects were introduced into the curriculum of secondary schools (Adeyonu & Carim-Sanni, 2013). In addition, the policy specified that tertiary education in Nigeria “should promote and encourage scholarship and entrepreneurship Education and Community Service (NPC, 2014).

The objective of Entrepreneurship Education in Tertiary Institution

The thrust of introducing Entrepreneurship Education to the tertiary institution is to provide graduates with the entrepreneurial skill needed in the private sector so that can also start their businesses and consequently employ others (Aladejebi, 2018).

Entrepreneurship Education Curriculum For Degree Students

The Federal Government of Nigeria gave a directive to the Nigerian Universities Commission (NUC) National Commission for Colleges of Education (NCCE) and the National Board of Technical Education (NBTE) to ensure that tertiary institutions establish Centre for Entrepreneurship Ventures (Hafiz & Saad 2005), according to Aladejebi (2018) in order to facilitate the efficiency delivery of Entrepreneurship Education, the Nigeria University Commission (NUC) prescribed the following ten areas in the Bench Mark Academic Standard (BEMAS) guide for teaching Entrepreneurship Education (EE) in Nigeria universities ;

- Introduction to entrepreneurship
- Entrepreneurship in the Theory and Practice
- Types of business, staffing, and marketing
- Capital requirement and capital raising
- Feasibility studies and reports
- Innovations

- Legal issues in business
- Insurance and environment considerations
- Possible business opportunities in Nigeria

Entrepreneurial Mindset

Naumann (2017) emphasizes that the adaptable thinking associated with an Entrepreneurial mindset occurs in a dynamic context. Nonetheless, while the direct effect of the environment on an Entrepreneurial mindset remains an area that has not received much research attention, Noble (2015) identifies informal institutions as a direct influence. Informal cultural norms, over time, become engrained in the mindset of the individual; in other words, the norms within a culture are noteworthy determinants of a mindset given that they pervade an individual's thinking (Noble, 2015). Although heterogeneity in such conditions is not specifically examined, the extent to which an Entrepreneurship mindset develops is likely a direct result of the external conditions in which they exist.

Ibitomi and Adeleke (2020) that, this makes Entrepreneurship Education very essential in increasing entrepreneurial mindset as it has been noted that Entrepreneurship Education can positively influence students to become productive in the area of entrepreneurship (Mahendra, Djatmika, & Hermawan, 2017).

There is a nexus between Entrepreneurship Education and Entrepreneurial mindset. Entrepreneurship Education contributes to the developing of an entrepreneurial mindset (Kuttim et al, 2014; Mat et al, 2015; Valliere, 2015; Sondari 2014).

The entrepreneurial mindset is not inherited, but it can be acquired through training and education. This assertion supports the claim of Athayde (2019) who is of the opinion that entrepreneurial attributes could be positively formed by the educational programme that makes students aware of entrepreneurship as a career choice.

Theoretical Framework

The widely researched intention models is the Theory of Planned Behaviour (TPB) developed by Ajzen (1991). The theory states that behavioural intentions are formed by one's attitude toward that behaviour and one's subjective norms (e.g. influence by parents role models and peers). The theory of Planned Behaviour (TPB) is premised on the fact that much human behaviour is planned and is therefore preceded by intention toward that behaviour. The theory assumes intention as the immediate antecedent of behaviour. The Theory of Planned Behaviour is premised on three factors; the person's attitude toward the behaviour, subjective norm (the influence of other people) and perceived behavioural control (personal assessment of whether one can do it or not).

Attitude

Entrepreneurial attitudes refer to the degree of one's positive valuation to develop a new business (Linan et al, 2013). Entrepreneurship attitude was found to have a significant positive relationship with entrepreneurship intention in many studies (Mahmoud, 2015; Mahmoud & Muharam, 2014; Kuttim et al 2014; Otuya et al 2013, Malebana, 2014; Linan et al 2013; Isah & Garba, 2015).

Subjective Norm

Subjective norm is the intense social pressure to perform a particular behaviour (Ajzen, 1991). It is the perspicacity of friends, family and colleagues on the particular behaviour in question. The greater the number of people that favour entrepreneurship decisions in a person's social network, the greater the expectation will be for such person to engage in entrepreneurship activity (Angrianwan et al, 2012).

Perceived Behavioural Control (PBC)

Perceived Behavioural Control is the seeming ease or obstruction of the execution of a particular behaviour (Ajzen, 1991). In this particular study, PBC is considered as the perceived ease or -difficulty to establish a new business (Linana et al, 2013). A number of entrepreneurship studies revealed that Perceived Behavioural Control is a strong significant factor that influences entrepreneurship intention (Ekpe & Mat. 2012; Lakovleva, Kolvereid & Stephen 2011. Linan et al, 2013; Mahmoud, 2015; Mahmoud & Muharam, 2014; Malebena, 2014).

Research Methodology

Area of study

The study was conducted among the final year degree students of Osun State College of Education, Ilesa.

Research Design

The study adopted a cross-sectional survey research design, which involved the use of a questionnaire together in-depth knowledge about the relationship between entrepreneur education and student entrepreneurial mindsets of the students.

Population of Study

The population of the study comprises of 270 students who are in their final year in their various departments. Rationale for selecting the final-year student anchored on the fact that they have been sufficiently exposed to Entrepreneurship Education from the lowest level to the final year as degree students.

Sample Size Determination

The sample size of the study was determined using Taro Yamane's (1967) formula for sample size determination. Arising from the sample size computation, the sample size for the study is 161 Respondents, the next stage is to ensure the sample size are distributed to represent the interest of all and to avoid bias in the distribution of the questionnaire, the stratified proportional allocation formula by Bowley (1926) was adopted to distribute the sample size into different departments for the basics of data collections.

Sampling Technique Procedure

Multi-stage sampling techniques were utilized. Firstly, Purposive sampling technique was adopted to choose five schools. Next to the purposive selection of five schools, the stratified sampling method was used to group the sampled population in strata on departmental basis. Finally, the study adopted random sampling to select respondents from each department within the purposively selected schools.

Instrument

The use of a questionnaire was adopted to draw responses from the identified respondents. The instrument has five parts – A, B, C, D, E.

Reliability and Validity of Research Instrument

The pilot was done with the questionnaire being administered to the degree students of Osun State College of Education, Ila-Orangun, Osun State. Cronbach's Alpha validated the internal consistency of the structures. Results from the test indicated that the values generated from Cronbach alpha for the constructs range from 0.61 to 0.857 which implied that the measurement scales of the instrument are very reliable. The experts who vetted the draft unanimously testified to the face and content validity and quality of the instrument.

Data Analysis

The study uses descriptive and influential statistics, frequencies table, linear regression and with the aid of statistical package for social Science (SPSS) software to analyze the quantitative data to accept and reject the stated hypotheses.

Presentation of Data

For clarity purposes and avoidance of possible ambiguities, tables were used to present the results, findings drawn from each of the research questions administered.

Hypotheses Testing

Hypothesis One

H₀: There is no significant relationship between entrepreneurship education and personal attitude towards an entrepreneurial mindset.

Acceptance Rule

Accept the null hypothesis if $P > 0.05$ and accept the alternative hypothesis if otherwise.

Table 4.4.1: Entrepreneurial Education and Personal Attitude

Analysis of Variance					
	Sum of Squares	Df	Mean Square	F	Significance
Regression	109.112	1	109.112	13.097	.000 ^a
Residual	1324.689	159	8.331		
Total	1433.801	160			
Coefficients					
Independent variables	Beta	T	Significance	Tolerance	VIF
ATTE	.276	3.619	.000	1.000	1.000
Correlational Statistics					
Dependent variable	Multiple R	R ²	Adjusted R ²	S.E of Estimate	Durbin Watson
ENTE	.276 ^a	.076	.070	2.88641	1.997

Source: Author's Computation, 2022

Table 4.4.1 above showed the relationship between Entrepreneurial Education and personal attitude. As given by the ANOVA section of the table, the relationship between

Entrepreneurial Education and personal attitude was statistically significant ($F = 13.097$, $P < 0.05$). This implied that there is a significant relationship between Entrepreneurial Education and personal attitude.

Furthermore, the correlation coefficient (R) of 27.6% showed a positive relationship between entrepreneurial education and personal attitude. This implied that Entrepreneurial Education determines individual development of an entrepreneurial mindset to a very great extent.

The Correlational Statistics showed that $t = 3.619$ which implied that there is a positive relationship between Entrepreneurial Education and personal attitude. The collinearity was checked through the Durbin Watson (DW) statistics; the DW showed a satisfactory value (approximately 2), and the result of the tolerance and the variance inflation factor (VIF) which is satisfactory. This study therefore rejects the null hypothesis and thus concluded that there is a positive and significant relationship between Entrepreneurship Education and personal attitude.

Hypothesis Two

H_0 : There is no significant relationship between Entrepreneurship Education and perceived behavioural control

Acceptance Rule

Accept the null hypothesis if $P > 0.05$ and accept the alternative hypothesis if otherwise.

Entrepreneurial Education and Perceived Behavioural Control

Analysis of Variance					
	Sum of Squares	Df	Mean Square	F	Significance
Regression	81.476	1	81.476	9.580	.002 ^a
Residual	1352.326	159	8.505		
Total	1433.801	160			
Coefficients					
Independent variables	Beta	T	Significance	Tolerance	VIF
PBC	.238	3.095	.002	1.000	1.000
Correlational Statistics					
Dependent variable	Multiple R	R ²	Adjusted R ²	S.E of Estimate	Durbin Watson
ENTE	.238 ^a	.057	.051	2.91637	2.006

Source: Author's Computation, 2022

Table 4.4.2 above showed the relationship between Entrepreneurial Education and perceived behavioural control. The collinearity was checked through the Durbin Watson (DW) statistics. The Durbin Watson (DW) was reasonable (approximately 2), which shows that the regression model was not self-related. As given by the ANOVA section of the table, the relationship between Entrepreneurial Education and perceived behavioural control was statistically significant ($F = 9.580$, $P < 0.05$). This implied that there is a significant relationship between entrepreneurial education and perceived behavioural control.

Furthermore, the correlation coefficient (R) showed (23.8%) that Entrepreneurial Education do influences perceived behavioural control. The Correlational Statistics showed that $t = 3.095$ which implied that there is a positive relationship between entrepreneurial education and perceived behavioural control. This study thus rejects the null hypothesis and therefore concluded that there is a positive and significant relationship between entrepreneurial education and perceived behavioural control.

Hypothesis Three

H₀: There is no significant relationship between Entrepreneurship Education and subjective norm

Acceptance Rule

Accept the null hypothesis if $P > 0.05$ and accept the alternative hypothesis if otherwise.

Table 4.4.3: Entrepreneurial Education and Subjective Norm

Analysis of Variance					
	Sum of Squares	Df	Mean Square	F	Significance
Regression	.479	1	.479	.053	.818 ^a
Residual	1433.322	159	9.015		
Total	1433.801	160			
Coefficients					
Independent variables	Beta	T	Significance	Tolerance	VIF
SJN	.018	.231	.818	1.000	1.000
Correlational Statistics					
Dependent variable	Multiple R	R ²	Adjusted R ²	S.E of Estimate	Durbin Watson
ENTE	.018 ^a	.000	-.006	3.00243	2.097

Source: Author's Computation, 2022

Table 4.4.3 above showed the relationship between entrepreneurial education and the subjective norm. The collinearity was checked through the Durbin Watson (DW) statistics. The (DW) was reasonable (approximately 2), which show that the regression model was not self-related. The ANOVA section of the table showed that the relationship between entrepreneurial education and subjective norm was not statistically significant ($F = 0.053$, $P > 0.05$). This implied that there is no significant relationship between entrepreneurial education and subjective norm.

Furthermore, the correlation coefficient (R) showed (1.8%) that the influence of Entrepreneurial Education on subjective norm is not significant ($p < 0.05$). Also, The Correlational Statistics showed that ($t = 0.231$) which implied that there is a positive relationship between Entrepreneurial Education and the subjective norm although, the relationship is not significant ($p = 0.818$). This study thus accepts the null hypothesis and therefore concluded that there is no significant relationship between Entrepreneurial Education and subjective norm.

Discussion of Findings

This study has successfully investigated the relationship between Entrepreneurship Education and entrepreneurial mindset. The findings showed that there is a positive and significant relationship between Entrepreneurship Education and students personal attitude. This implied that efficient handling of Entrepreneurship courses do influence the general attitude of students towards entrepreneurial mindset. This view was supported by Dutta, Li and Menda (2011) who affirmed that Entrepreneurship Education plays a critical role in motivating prospective entrepreneurs towards entrepreneurial mindset, by providing them with a combination of knowledge, skills and the attitude to establish enterprises. Ibitomi and Adeleke (2020) whose study focused on analyses of Entrepreneurship Education on entrepreneurial intention among undergraduates students in Nigeria indicated that entrepreneurial knowledge in terms of Entrepreneurial Education significantly determine entrepreneurial mindset.

It is also interested to know that this study supports the multi-dimensional perspective of Yort-koru, Kuscu, and Doganay (2014) in the context of the TPB by Ajzen (1991) where the result of multiple regression showed that personal attitude and perceived behavioural control significantly influence entrepreneurial mindset by jointly explaining 64 percent change in entrepreneurial mindset.

Finally, the study found a positive but not significant relationship between entrepreneurship education and subjective norm. This was supported by Senary Sabah (2016) who maintains that human behaviour adopted according to other peoples attitude towards given behaviour, although the effect is taken to be effectual across cases and cultures, the significant others differ for different individuals. For instance, for individuals holding a job, the co-workers or other work-related networks are important. On the other hand for students, family and friends may be important. The effect of subjective norms is questioned due to insignificant and non-systematic previous results regarding it.

Conclusively, this study showed that there is a positive relationship between entrepreneurship education and entrepreneurial mindset as established in the studies of Olotu, Abdul and Oladipo (2018) and Dogan (2015) that lay emphasis on knowledge as the key to the development of future entrepreneurs and entrepreneurial activities.

Conclusion

The study discovered that personal attitude, perceived behavioural control, and subjective norms do exert high influence on the entrepreneurial mindset of students in Osun State College of Education, Ilesa. The study therefore concluded that Entrepreneurial Education had positive and significant relationship with entrepreneurial mindset.

Recommendations

The findings of the research show that entrepreneurship education has a positive impact on entrepreneurial mindset of students and having exposed to entrepreneurial studies, students have positive attitude to start their own business when they graduate. On the strength of this finding, it is recommended that:

- i. Lecturers of Entrepreneurship Education should be more practical oriented, trained, retrained, motivated and developed through organizing seminars,

- attending sponsored conferences in developed countries to sharpen their entrepreneurial wit and skills.
- ii. There should be harmonized Entrepreneurship Education curriculum developed by NUC, NCCE, NABTEB and other Commissions that are custodial of tertiary education programmes to meet the need of the society.
 - iii. There should be Entrepreneurship Centres in all the tertiary institutions where students can be exposed to practical training on entrepreneurship and acquired basic entrepreneurial skills.
 - iv. College authorities should put facilities in place to enhance the teaching of Entrepreneurship Education to reinforce the perception of the students about the stability of their entrepreneurial mindset in the future.

References

- Adeyonu, A.G. & Carim Sanni, A. (2015) Assessment of the New Trade/Entrepreneurship Education in Senior Secondary Schools: Evidence from Rural and Urban Areas of Oyo State, Nigeria. *British Journal of Educational Society & Behavioral Science*, 5(1). 50-61.
- Agbim, K.C., Oriarewo, G.O. & Onocho, M. (2012). Factors influencing entrepreneurial self-efficacy and entrepreneurial mindset among Malaysian University Students. *Academy of Entrepreneurship Journal*, 6(1),58-63.
- Agbonlahor, A.A, (2016). Challenges of Entrepreneurial Education in Nigerian Universities: towards a repositioning for impact. *Journal of Educational and Social Research*, 6, 208-214. 2016.
- Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Aja-Okorie, U., & Adali, O. (2013). Achieving Youth empowerment through repositioning entrepreneurial education in Nigeria universities; problems and prospects. *European scientific Journal ESJ*, 9(28), 121-143.
- Aladejebi, O. (2018). The Effect of Entrepreneurship Education on Entrepreneurial Mindset among Tertiary Institutions in Nigeria. *Journal of Small Business and Entrepreneurship Development* 5(2),1-14.
- Bosman L. and Fernhaber, S. (2018). *Teaching the Entrepreneurial Mindset to Engineers*. Springer International Publishing.
- Chete, C.N., Adeoti, J.O., Adeyinka F.M. & Ogundele, O. (2014) Industrial Development and Growth in Nigeria. Lessons and Challenges. UNU-WIDER: Working Paper, 160.
- Ekpe I, Mat, N. (2015). The moderating effect of social environment on the relationship between entrepreneurial orientation and entrepreneurial intentions of female

students at Nigerian universities. *International Journal of Management Sciences and Business*, Vol 1, (4). 123-138.

Fretschner, Michael, and Susanne Weber. (2013). Measuring and understanding the effects of entrepreneurial awareness education. *Journal of Small Business Management* 51 (3), 410-428. 2019.

García-Rodríguez, F. J., Gutiérrez-Taño, D. & Ruiz-Rosa, I. (2017). The business model approach in entrepreneurship education: Impact on undergraduates' enterprise potential. *Mediterranean Journal of Social Sciences*, 8(3):59-71. [doi:10.5901/mjss.2017.v8n3p11](https://doi.org/10.5901/mjss.2017.v8n3p11)

Hafiz, H. Sa'ad, G. (2015). Assessing the richness of entrepreneurship education curriculum content: Empirical evidence. *Journal of Research and Method in Education* 5, (6), 107-114. Doi: 10.97017388-0562107114.

Ibitomi, T. & Adeleke, O.J; (2020). Analyses of Entrepreneurship Education on Entrepreneurial Mindset Among Undergraduate Students in Nigeria. *European Journal of Business and Innovation Research Vol. 8* (8) pp1-18.

Kumar, M, Talib, S.A. & Ramayah, T. (2013). *Business research methods*. Oxford Fajar/Oxford University Press.

Obenibe, E, Otesile, O. & Ukong, I. (2014). Understanding the students' perspectives towards entrepreneurship. *Procedia-Social and Behavioural Sciences*, 145,5-11.

Ogendengbe F.A, Okhakwu C.O., Adekunle S.A., (2013) Entrepreneurial Education for Sustainable Development. *Nigerian Journal of Management Science*, 4(1), 78-87.

Ogundipe, S. E., Kosile, B. A., & Ogundipe, L. O. (2012). Entrepreneurial mindset among business and counseling students in Lagos State University sandwich programme. *Journal of Educators and Education*, 29, 155-175.

Okolocha C.C. (2012) Vocation on Technical Education in Nigeria: Challenges and the Way Forward. *Business Management Dynamics*. 2(6), 1-8.

Olorundare, A.S, and David, J.K. (2014). Entrepreneurship education in Nigerian universities: a tool for national transformation. *Asia Pacific Journal of Educators and Education*, 29, 155–175.

Onyido J.A. (2016). *Sociology of Education Made Easy*. Port Harcourt: Gen-x Press. *National Policy on Education*, 6th Edition, NCERDC Publishing Press, Port Harcourt.

- Quality Assurance Agency for Higher Education (UK, 2012). Enterprise and entrepreneurship education: Guidance for UK higher education provider. www.qaa.ac.uk
- Smith, W & Chimucheka, T. (2014). Entrepreneurship, Economic Growth and Entrepreneurship Theories. *Mediterranean Journal of Social Sciences*. 5(14), 160.
- Thum, M. (2012). The right mindset: Change your mindset in 6 Steps. Retrieved from: [http:// www.myrkothum.com/mindset/](http://www.myrkothum.com/mindset/).
- Viatonu, Olumuyiwa, Sulaimon A. Muse and Abedeen B. Suluka. (2018). Entrepreneurship: A viable panacea to socio-political unrest in Nigeria. *Covenant Journal of Entrepreneurship (CJOE)*_2(2), 14-23.

UNIVERSITY SUPPORT SERVICES, ENTREPRENEURSHIP EDUCATION AND STUDENTS' ENTREPRENEURIAL INTENTION FOR SUSTAINABLE DEVELOPMENT: AN EMPIRICAL ANALYSIS

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Abstract

The study examined the nexus among university support services, entrepreneurship education, and entrepreneurial intention of students in selected tertiary institutions, in Southwest Nigeria. Planned behaviour theory was engaged to give a conceptual guide to the study. Research design is descriptive in approach as it enabled the researcher to explore the emerging issues in context. A study population of 957 students and a sample size of 282 respondents was selected for this study. The research instrument used in gathering information was a structured questionnaire and a key Informant Interview (KII) using a Five-Point Likert response Scale. The analysis of the completed questionnaire was done using descriptive and inferential statistics through standard deviation, hypothesis testing and regression analysis respectively. The study revealed a positive link between university support services and students' entrepreneurial intention with $\beta = 0.823$; $t\text{-value} = 34.755^{***}$; $p\text{-value} = 0.000$. It was also discovered from the result of the hypothesis tested that university support services have a direct and significant influence on student's entrepreneurial intention. The study recommended that Nigerian academic institutions and government should further provide the relevant and adequate infrastructure that encourages idea generation by students which fosters sustainable development.

Keywords: University Support Services, Entrepreneurship Education, Entrepreneurial Intention, Sustainable Development

Introduction

Entrepreneurship education is significant as it remains a key factor in creating and developing an entrepreneurial mindset and culture in students. This has consistently served as a potent threshold in changing students' orientations from relying on searching for white-collar jobs in the current labour market to imbibing the spirit of entrepreneurial initiative that leads to the creation of employment for sustainable economic development. The role of entrepreneurship education in the development of students' entrepreneurial intention cannot be overemphasized and universities play an obvious role in this direction through the creation of enabling educational environment and provision of support services. Previous research has been conducted in relation to entrepreneurship education and students' entrepreneurial intentions; the majority of which were centered on entrepreneurship pedagogy and personality traits influence (Olokundun, Ibidunni, Ogbari, & Peter, 2018; Karabulut, 2016; Demirtas, Karaca, & Ozdemir, 2017; Faloye & Olatunji, 2018; Olokundun, Ibidunni, Peter, Amaihian, Moses & Iyiola, 2017). However, there was

a paucity of research on the influence of university support services and students' entrepreneurial intentions; hence this current study attempts to fill this identified gap by focusing on establishing the link between university support services provided in entrepreneurship education and the extent to which such services have impacted students' entrepreneurial intentions for sustainable economic development.

According to the extant literature, Nigeria is one of the sixth largest oil producers on the continent, with estimated oil reserves of over 35 billion barrels ($5.6 \times 10^9 \text{m}^3$) and natural gas reserves of over 2,800 km³ (100 trillion cubic feet)(The African Exponent, 2019). Also, Nigeria ranks 6th in the world for agricultural products such as cocoa, peanuts, natural rubber and palm oil, and 1st in Africa (The African Exponent, 2019). Despite these attractive development indicators, the country is still constrained by poverty and unemployment. Supporting the above, the study by Ojeaga & Owolabi (2011) found that young men and women graduate from various learning institutions each year with a strong desire to be gainfully employed but met brick walls as the current labour market conditions are unfavourable. Unemployment has been the basic economic and social problem confronting most of the countries of the world, developed and developing ones.

Entrepreneurship as a discipline is fast growing and receiving remarkable attention from relevant stakeholders such as researchers and scholars because of its pivotal standing as one of the key ingredients for ensuring economic growth and sustainable development (Anjum, Farruk, Heidler & Tautiva, 2021). Considering the aforementioned roles of entrepreneurship, scholars and researchers are paying adequate attention to investigating factors that can influence the growth of entrepreneurship positively and as well accelerate its pace of development of which this particular study is no exception.

Anjum et al (2021) opined that economic survival, growth and development can be sustained and improved upon through capacity building of the young population by the instrumentality of entrepreneurship. The adoption of entrepreneurship by all stakeholders connotes a whooping increase in the number of entrepreneurs that are produced on a yearly basis nationally and this will ultimately reduce dependence on government and also boost local content. From the perspective of Hayter (2013); to achieve and sustain economic growth and social development, the youth especially the graduates and undergraduates must be empowered through the provision of required University support services (in the form of university spin-offs), that can equip them with the right skills and knowledge needed to think creatively as this will propel them to inculcate entrepreneurial culture for sustainable development. By so doing, the statistics of entrepreneurs will increase and thereby creating jobs for the masses, increasing the gross domestic product of a country as well as achieving sustainable economic development.

Statement of the Problem

The issue of underemployment has necessitated more research on how undergraduates in Nigerian universities can obtain a spectrum of entrepreneurship skills, knowledge, and entrepreneurial traits required for entrepreneurial intention towards entrepreneurial venture creation, growth and sustainable economic development. Approximately 21,764,614 (21.7 million) Nigerians are still without work, according to data from the National Bureau of

Statistics (2020) which accounted for a 27.1% unemployment rate in the second quarter of the year. Entrepreneurship education was embraced in Nigeria to speed up economic growth and development and this is observed in Nigeria's national policy on education as it defines education as a vital tool for propelling change. This assertion is further supported by extant literature that the educational revolution impacts intellectual capabilities that creates a fundamental change in the society (Akhuemonkhan, Raimi & Sofoluwe, 2013).

Succinctly, in Nigerian universities, the fundamental growth and advancement of knowledge on the entrepreneurial skills essential for self-employment have not been adequately taught as expected in the undergraduate level curriculum and most needed infrastructure and other support services are grossly inadequate. (Johnson & Abam, 2017; Okorie, 2020)

Based on the above, this study attempts to investigate the relationship between university support services and entrepreneurial intention among students of selected tertiary institutions in Southwest Nigeria. Also, answer to the research question on how university support services influence entrepreneurial intentions among students of selected tertiary institutions in Southwest Nigeria is sought.

Literature Review

Literature was reviewed along the following concepts:

Entrepreneurship Education

Lubna (2019) observed that education is a driving force for the development and empowerment of the inhabitants of a country; further he affirms that university education is an instrument of empowerment at the three levels of education, namely: primary, secondary, and tertiary; providing individuals with skills required for sound social living. Education in entrepreneurship impacts the learner with risk-taking, ideating, innovating, and coordinating all production elements in order to create new products or services value for existing and new customers within human societies (Ari, 2018; Iwu, Opute, Nchu, Eresia-Eke, Tengeh, Jaiyeoba & Aliyu, 2021). Entrepreneurship education from the perspective of this study includes, instruction in commercializing a concept, recognizing opportunities, utilizing resources and starting a business venture. It is the process that helps students develop their skills or get reskilled, capacity building, behavioural and mindset change to create value and distinctiveness within an environment.

University Support Services

In the work of Seth (2020) and Olokundun (2017), university support services were described as internal incentive system such as characteristics and roles of faculty, external factors such as statutory laws, policies and relationships with industry to promote entrepreneurial intention and culture among students. University support services also connote a conducive learning environment, adequate and equipped laboratories, seed funding and business incubation platforms. According to Malecki (2018), university teaching environments are the most important determinants of students' perspectives and inclinations of an entrepreneurial future in this context. Universities are hubs for scholars, key agents for the expansion of knowledge through teaching and learning, research and

community service engagement as well as the influence to transforming the world (Liu & Huang, 2018; Alemu, 2018). The work of Marozau, Guerrero, & Urbano (2021), also views universities as ethos-sharing institutions that enable cooperation across cultural diversity because they enhance students' understanding of the world including the development and sustainability of entrepreneurship.

In order to expand the skill, set of students; universities have lots of supportive roles to play such as encouraging students to take part in business workshops and competitions, establishing vocational centres, and inviting guest speakers and industry leaders for robust engagements. All of this form an excellent model of demonstrating the value of entrepreneurial mindset to students and partnering with industries through internships and linkages.

Entrepreneurial Intention

Nuringsih, Nuryasman and Iwanprasodjo (2019) in their study viewed intentions as a strong predictor of planned individual acts, especially when such activities are unusual, difficult to monitor or entail unpredictable time delays. Diverse definitions have been made of entrepreneurial intent as well; one of which is exploring information and other resources with the goal of starting a business (Gilmatin, Thompson, Morton, Jin, Chen, Colby & Sheppard, 2019). In the present study, entrepreneurial intention is defined as “a self-acknowledged by a person's conviction that they intend to set up a new business venture and consciously plan to do so at some point in the future”. Conversely, a person's desire to start a business is a major indicator of entrepreneurial aptitude. Gilmatin et al (2019) and Bui, Nguyen, Tran and Nguyei (2020) see entrepreneurial intention as a state of mind requiring personal focus and knowledge to achieve new venture creation, methods of gathering resources and information to create a business. In other words, it can be viewed as a person's perception and personal dedication to planned actions in carrying out entrepreneurial actions.

University Support Services, Entrepreneurship Education and Entrepreneurial Intention

The entrepreneurship intention of the student is being influenced by the quality of support services like infrastructural facilities such as business incubators, conducive learning environment, provision of seed funding and well-equipped entrepreneurship laboratory where students generated ideas could be harnessed into prototypes that can eventually be commercialized. According to empirical findings by Olokundun (2017), it was discovered that the use of entrepreneurship education approaches greatly increases students' engagement and eventually new businesses were started by students. Also, students' dedication to studying and developing business plans is heavily influenced by university support systems which considerably boost information exchange and creativity among participating students.

Similarly, the results of a survey conducted by Gafar, Kasim & Martin, (2013) where entrepreneurial idea development was designated as the strategic teaching aim of the business team project partnership program (BT-PPP). Findings indicated that BT-PPP was suitable for stimulating entrepreneurial idea development, engagement and networking as outcomes of entrepreneurial education and university support services. Conversely, the

outcome of the study by Bilic, Prka & Vidovic, (2011) discovered a weak relationship between the educational system and the entrepreneurial orientation of students which was attributed to the curriculum's incapacity to foster entrepreneurial thinking.

Theoretical Review

Theory of Planned Behavior (TPB) was adopted for the study. Entrepreneurial intention according to the study of Gorgievski, Stephen, Laguna and Moriano (2018) was described as students' decision to venture into business as a future career choice. However extant studies identified a multiplicity of factors such as entrepreneurial education, structural support, personality trait and others as affecting students' entrepreneurial intention. A plethora of studies have consistently engaged certain theories on entrepreneurial intention such as Human Capital Theories of Entrepreneurship, Theory of Planned Behaviour, and Experiential Learning Theory among others. However, this study was anchored on the Theory of Planned Behaviour. The basic assumption is that individuals act in a rational manner in line with their attitudes, norms and other perceived factors controlling them; forming to a large extent the basis for their decisions. This applies that university support services serve as a significant influence on students' entrepreneurial intention.

Methods and Results

This study utilized a descriptive research design which enable the researcher to explore the problem's context in detail. The population of this study consists of all undergraduate entrepreneurship students at selected universities in Southwestern Nigeria that offer degree programmes in Entrepreneurship. The study population was given as 957 students while the sample size of 282 respondents was selected for this study using the Taro Yamane sample size determination formula (1967). Key Informant Interview (KII) was conducted for respondents who shared certain characteristics relevant to the study. The research instrument for generating data was a structured questionnaire with a Five-Point Likert response scale. The analysis of the completed questionnaire was done using descriptive and inferential statistics such as mean, Standard deviation and hypothesis testing, regression analysis respectively.

Sample and Sampling Techniques

Data were collected from undergraduate students of Entrepreneurship at selected Universities in Southwest Nigeria. Specifically, Purposive and simple random sampling techniques were engaged. Firstly, a purposive sampling technique was used to select seven Universities that are duly accredited by the Nigerian University Commission (NUC) to run Entrepreneurship degree programs at the undergraduate level, while a simple random sampling technique was employed to select the sample.

The sample for this study was determined using a sample size calculation method recommended by scholars and which has been extensively used in scientific research (Yamane, 1967). The formular is as stated below:

$$n = \frac{N}{1 + N(e)^2}$$

Where; n= Sample size required

N= Population Size

e= Level of Significance

1= is a constant

The sample size was further determined using proportionate allocation formula recommended by previous work and widely accepted in scientific research (Achon, Okoro & Ozomadu, 2019).

$$Nh = \frac{n * nh}{N}$$

Where, nh= Total population of respondents per university

n= Determined sample size

Nh= Number of units to be distributed to each selected university

N= Total population

Results and Discussion

Table 1: Distribution of Respondents by the University Support

Statement	N	Min	Max	Mean	Std. Deviation	Remark
The institution promotes technology patenting and commercialization	275	1.00	5.00	3.91	1.30	Accepted
The institution foster entrepreneurship through business incubator Initiatives	275	1.00	5.00	3.55	1.36	Accepted
Seed funding is an institutional policy for promoting entrepreneurship	275	1.00	5.00	3.67	1.27	Accepted
The institution assists to get our business registered before graduation	275	1.00	5.00	3.56	1.36	Accepted

Source: Field Work, (2022)

Table 1 summarizes the distribution of respondents by the university support towards entrepreneurial venture creation. Majority of the respondents agreed that their institutions

promote technology patenting and commercialization with a mean value of 3.9187 and an SD value of 1.30148. The mean value of 3.5567 and SD value of 1.36722 reveal that majority of the respondents affirmed that their institutions fostered entrepreneurship through business incubation initiatives. The study further confirms that most respondents agreed that seed funding is a key institutional policy for promoting entrepreneurship with a mean value of 3.6718 and SD value of 1.27107. The mean value of 3.5644 and SD value of 1.36463 reveals that the majority of the respondents confirm that their institutions supported them to obtain their business registration. From the above consistent result, the study universities are found to be promoters of entrepreneurial venture creation as they provide strategic platforms for potential entrepreneurs to thrive. By implication, these responses evidently reveal that there are basic infrastructures and policies in place for advancing students' entrepreneurial intentions.

Supporting the above findings, most of the interviewed lecturers confirmed substantial support from the university. They stated that the university has been meeting its statutory obligations in terms of engaging artisans for practical, financing entrepreneurial excursions, assisting students to get a business registered before graduation, and seed funding for entrepreneurial ideas. A response obtained from a lecturer was

“My institution has a functioning entrepreneurship study centre with adequate facilities such as business incubator, where prototype of student business idea can be processed before commercialization. Students are usually encouraged to develop idea, design same and market their product within the campus and beyond” (KII/Female/OAU/2022)

Table 2: Hypothesis Test of the Influence of University Support Services on Students' Entrepreneurial Intention

Variable	Constant	University Support Services (Model III)
Coefficient	0.529	0.823
t-value	5.839	34.755**
p-value	0.000	0.000
F-value	1207.911	
R	0.903	
R ²	0.815	
Adj.R ²	0.816	
D-W	1.785	

*P<0.05 **P<0.01

Source: Field Work, (2022)

Table 2 above revealed the contribution of university support services to students' entrepreneurial intention with $\beta = 0.823$; t-value = 34.755**; p-value = 0.000. Statistics show that university support services have a significant influence on students' entrepreneurial intentions. This implies that university support services such as a conducive learning environment, well-equipped laboratories, seed funding and business incubation influence students' entrepreneurial perception, intention towards entrepreneurial venture

creation and sustainable development. This study is consistent with the finding of a previous survey that university support services are among the key elements that influence students' perception and intention towards entrepreneurial venture creation. Similarly, the studies of Seth (2020) also confirmed that university support services have a positive link with entrepreneurial intention and culture among students.

Conclusion

The results of the study established that university support services had direct and significant effect on students' entrepreneurial intention. This implies that university support services such as a conducive learning environment, well-equipped laboratories, seed funding and business incubation influence students' entrepreneurial perception and intention towards entrepreneurial venture creation. This study however supports the finding of previous researchers that university support services are the primary criteria that positively influence students' perception and intention towards entrepreneurial venture creation.

Recommendations

Nigerian academic institutions and government agencies should further provide the adequate infrastructure that encourages idea generation by students. Such infrastructure includes business incubators, seed funding, a conducive learning environment and well-equipped laboratories. Also, effective policies and strategies that foster and motivate students to imbibe entrepreneurial culture should be formulated, modified, and implemented.

In addition, creating an enabling environment and institutional framework that encourages students to take risks should further be emplaced in place by the government and other stakeholders. There should be a deliberate roundtable of successful entrepreneurs and start-up founders with students as they share their experiences with the common goal of fostering entrepreneurial intentions.

Contribution to Knowledge and Suggestion for Further Studies

Empirically the study contributed to the literature by expanding the empirical understanding of the extent University Support Services in entrepreneurship education influences students' entrepreneurial intention for sustainable development. However, the study was limited to undergraduate students of entrepreneurship degree programs in Southwest Nigeria. Hence further study could expand on both content and geographical scope of the current study for generalization.

References

- Achonu, C. V., Okoro, C. B., & Ozomadu, E. A. (2019). Effect of Authoritative Classroom Management Style on Performance of Students in Public Secondary Schools in Imo State. *International Journal of Management and Marketing Systems*, 13(5), 91-116.
- Akhuemonkhan, I. A., Raimi, L., & Sofoluwe, A. O. (2013). Entrepreneurship education and employment stimulation in Nigeria. *Journal of Studies in social sciences*, 3(1), 55-79.

- Alemu, S. K. (2018), The Meaning, Idea and History of University/Higher Education in Africa: A Brief Literature Review. FIRE: Forum for International Research in Education (Vol. 4, No.3)
- Anjum, T., Farrukh, M., Heidler, P., & Tautiva, J. A. D. (2021). Entrepreneurial intention: Creativity, entrepreneurship, and university support. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(1), 11 - 24.
- Bilić, I., Prka, A., & Vidović, G. (2011). How does education influence entrepreneurship orientation? Case study of Croatia. *Management: journal of contemporary management issues*, 16(1), 115-128.
- Bui, T. H. V., Nguyen, T. L. T., Tran, M. D., & Nguyen, T. A. T. (2020). Determinants influencing entrepreneurial intention among undergraduates in universities of Vietnam. *The Journal of Asian Finance, Economics and Business*, 7(7), 369-378.
- Demirtas, O., Karaca, M., & Ozdemir, A. H. (2017). The influence of personality traits on entrepreneurial intention. *International Journal of Management and Sustainability*, 6(2), 33-46.
- Faloye, D. O., & Olatunji, O. D. (2018). Entrepreneurship education and self-employment intentions among fresh graduates in Nigeria. *Journal of Economics and Sustainable Development*, 9(12), 146-158.
- Gafar, M., Kasim, R., & Martin, D. (2013). Entrepreneurial idea development to business start-up: Teaching methodological approach. *Journal of Research & Method in Education*, 1(4), 46-55.
- Gilmartin, S. K., Thompson, M. E., Morton, E., Jin, Q., Chen, H. L., Colby, A., & Sheppard, S. D. (2019). Entrepreneurial intent of engineering and business undergraduate students. *Journal of Engineering Education*, 108(3), 316-336.
- Gorgievski, M. J., Stephan, U., Laguna, M., & Moriano, J. A. (2018). Predicting entrepreneurial career intentions: values and the theory of planned behaviour. *Journal of career assessment*, 26(3), 457-475.
- Hayter, C. S. (2013). Harnessing university entrepreneurship for economic growth: Factors of success among university spin-offs. *Economic development quarterly*, 27(1), 18-28.
- Iwu, C. G., Opute, P. A., Nchu, R., Eresia-Eke, C., Tengeh, R. K., Jaiyeoba, O., & Aliyu, O. A. (2021). Entrepreneurship education, curriculum and lecturer-competency as antecedents of student entrepreneurial intention. *The International Journal of Management Education*, 19(1), 100295.
- Karabulut, A. T. (2016). Personality traits on entrepreneurial intention. *Procedia-Social and Behavioral Sciences*, 229, 12-21.

- Liu, Y., & Huang, Q. (2018). University capability as a micro-foundation for the Triple Helix model: The case of China. *Technovation*, 76, 40-50.
- Malecki, E. J. (2018). Entrepreneurship and entrepreneurial ecosystems. *Geography compass*, 12(3), e12359.
- Marozau, R., Guerrero, M., & Urbano, D. (2021). Impacts of universities in different stages of economic development. *Journal of the Knowledge Economy*, 12, 1-21.
- National Bureau of Statistics, Covid-19 Datahub Available at 2020, <https://www.nigerianstats.gov.ng/>.
- Nuringsih, K., Nuryasman, M. N., & IwanPrasodjo, R. A. (2019). Sustainable entrepreneurial intention: the perceived of triple bottom line among female students. *JurnalManajemen*, 23(2), 168-190.
- Okorie, S. (2020). Rising Cost of Education in Nigeria: Has it Translated into Access to Quality Education. In Z. Achuonye, S., Shuaibu & S. T. George. Onitsha: West and Solomon Coy Ltd
- Olokundun, A. M. (2017). *Perceptions Of Students on Entrepreneurship Education And Entrepreneurial Intentions In Selected Nigerian Universities* (Doctoral dissertation, Covenant University, Ota, Nigeria.).
- Olokundun, A. M., Ibidunni, A. S., Ogbari, M. E., & Peter, F. (2018). A Thematic Analysis on The Effect of Entrepreneurship Pedagogy On Identification of Business Opportunities by Engineering Students: A Case of Covenant University. *International Journal of Mechanical Engineering and Technology (IJMET)*, 9(12), 824-831.
- Olokundun, A. M., Ibidunni, A. S., Peter, F., Amaihian, A. B., Moses, C., & Iyiola, O. O. (2017). Experiential pedagogy and shared vision: a focus on identification of business opportunities by Nigerian University Students. *Journal of Entrepreneurship Education*, 20(2), 1-12.
- Rashid, L. (2019). Entrepreneurship education and sustainable development goals: A literature review and a closer look at fragile states and technology-enabled approaches. *Sustainability*, 11(19), 5343 - 5362
- Saptono, A. (2018). Entrepreneurship education and its influence on financial literacy. *Journal of Entrepreneurship Education*, 21(4), 1-11.
- Seth, K. P. (2020). *The impact of Entrepreneurship Education on Entrepreneurial Intention: An empirical study of entrepreneurship education's four key characteristics* (Doctoral dissertation, Brunel University London).
- The African Exponent, The Largest Economies in Africa by GDP, <https://www.africanexponent.com/amp/post/9786-top-six-countries-with-the-biggest-gap-in-Africa>, 2019.
- Timi-Johnson, C.T. & Abam, R.P. (2017). Global challenges of higher education in

Bayelsa State: the way forward. *International Journal of Progressive and Alternative Education*, 4(1), 1-9.

Yamane T. (1967), *Statistics: An Introductory Analysis*, 2nd Edition, New York: Harper and Row.

ILLUSTRATIONS OF CRITICAL, TRANSFORMATIVE, AND HOLISTIC EDUCATION FOR SUSTAINABLE DEVELOPMENT AND GLOBAL CITIZENSHIP

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Abstract:

This paper discusses the role of teachers and teacher educators in promoting a just and sustainable world about Education for Sustainable Development and Global Citizenship (ESD/GC). Bringing together empirical and theoretical perspectives, the paper explores case studies from the UK, Europe, and Africa to illustrate ESD/GC in research, policy and practice. Taking the themes of values, curriculum, and assessment in turn, it explores how each of these is being reconceptualised and revised in the context of holistic, critical and transformative approaches to ESD/GC. The importance of collaboration through communities of practice and networks such as TEESNet is emphasised.

Introduction

Global policy discourse has renewed attention on the role and nature of Education for Sustainable Development and Global Citizenship (ESD/GC) within teacher education. The Organization for Economic Co-operation and Development (OECD) has developed a framework (OECD, 2018) to make international comparisons of ‘global competency’ in the Programme for International Student Assessment (PISA) and ESD/GC has emerged as pivotal to the universal ambitions of the Sustainable Development Goals (SDGs) (UNESCO, 2016a, p. 287). In particular, SDG 4.7, aiming for all learners to acquire the knowledge and skills needed to promote sustainable development, arguably constitutes “the very heart of the sustainability agenda in education” (King, 2017, p. 808). Furthermore, the global indicator for measuring progress towards meeting Target 4.7 is the extent to which ESD/GC is mainstreamed at all levels in “national education policies, curricula, teacher education and student assessment” (United Nations Statistical Commission, 2018, p. 5). Significantly, and pertinent to the discussion in this paper, reports on progress towards meeting Target 4.7 (UNESCO, 2018) have established that “insufficient teacher training remains a stumbling block” (p.1).

This paper focuses on the role and nature of ESD/GC within initial (or pre-service) and in-service continuing professional development within compulsory schooling, whilst also explicating the implications for educators more broadly. It draws upon practice-facing case studies from teacher educators in universities and schools, educators in civil society organisations, researchers, policy makers, classroom practitioners and those engaged in informal educational settings across a diverse range of different countries. This approach is particularly timely as analysis of curricula and policy, rather than practice, predominates ESD/GC research (see Andreotti, 2006; Mannion et al., 2011). Certainly, ‘implementation’ of SDG 4.7 is “generally lower than the high level of policy commitment would lead one to expect” (UNESCO, 2018, p. 12), suggesting policy-level reform is not necessarily reaching the classroom (Evans et al, 2017). This paper therefore highlights much-needed empirical evidence of how such ESD/GC is experienced in teacher education.

The holistic, critical and transformative dimensions of ESD/GC

The United Kingdom Teacher Education Network for Education for Sustainable Development/Global Citizenship (ESD/GC) was formed in 2007 to “integrate issues of social and environmental justice, poverty eradication and ecological conservation, and social and biological diversity, and develop a teacher education curriculum that enables new teachers to explore these critical issues within their classrooms” (Inman *et al.*, 2011p. 150). Through a series of annual conferences and regional seminars, this community of practice developed a “radical” (Inman, 2011, p. 155) approach integrating ESD and GCE. ‘Holistic’, ‘critical’ and ‘transformative’ aspects of ESD/GC emerged as pivotal to this discourse and associated practices, as summarised in Figure 1 below.

Table 1: Holistic, critical, and transformative dimensions of ESD/GC

Dimensions of ESD/GC	Description	Addressed through
Holistic approaches through co-operation with others	As an inclusive practice, ESD/GC recognises the learners’ different starting points, engaging not only their own preferred perspectives but also the different views of others. Both within and across subject disciplines, ESD/GC engages not only with the cognitive but also with the emotional, not only with ecological perspectives but also with broader ethical, social, economic, cultural and spiritual perspectives. It encompasses not only the present but also the future, not only the human world but also the world of all other living organisms, not only the self in a state of change but also local and global society in states of change.	Developing enquiries across subject boundaries Linking the local and global Holistic approaches to ESDGC including the dimensions of wellbeing, the spiritual, the emotional, the cognitive and action
Criticality through cognitive and affective dissonance	ESD/GC draws on multiple perspectives and encourages a contested view of both knowledge and pedagogical choices. It raises critical questions about such ideas as continuous economic growth on a finite planet, about the challenges to health and wellbeing that come from our consumerism and associated lifestyles, about forms of justice at local and global levels, and about pedagogical approaches that can be developed in response. It problematises frameworks such as militarism and peace, the conditions of the world’s poor, the production of food, population growth and control, biodiversity, the use of genetically modified crops, the creation of biofuels, economic dependency on oil products, the impact of different energy sources, the relationship between social justice and ecological justice, and the relative power of social and ecological actions.	Developing criticality in learners Engaging with controversial and difficult issues Pedagogy that encourages participation, engagement, collaboration and critical enquiry
Transformative activity and creativity	ESD/GC provides insights into the feasibility of alternative lifestyles, alternative value systems and breaks with the dominant economic paradigms. It explores new environmental and ecological relationships and encourages innovative educational partnerships. It prioritises personal and professional development and growth that arises from engaging with diversity and dissonance. It supports teacher educators in navigating the changing educational and	ESDGC as a pedagogy of hope, enabling innovation and creativity Navigating the changing educational and political context

	political context in the cause of equity and sustainability.	Educators as agents of change
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(Adapted from Belgeonne et al., 2014: 5)

This paper seeks to explicate these ‘holistic’, ‘critical’ and ‘transformative’ dimensions of ESD/GC in research, policy and practice. Holistic approaches seek to cultivate values and dispositions; and they have become pivotal to contemporary frameworks for the delivery and evaluation of ESD/GC (Fricke & Gathercole, 2015; UNESCO, 2014). However, they remain under-theorised and their implications for practice have been given limited attention (Bamber et al., 2013; Goren & Yemini, 2017). Also, limited evidence exists on what critical ESD/GC looks like in practice: the overwhelming demands from theoretical research for more critical GCE contrast starkly with minimal discussion of criticality found within a meta-analysis of empirical research (Goren & Yemini, 2017). Finally, despite a groundswell of evidence of the need for ‘transformative approaches’ to education (UNESCO, 2015), proponents of transformative pedagogy for ESD/GC (see, for example, UNESCO, 2014; Fricke & Gathercole, 2015) only provide cursory analysis of the theoretical foundations that substantiate and stimulate such pedagogy.

Critical GCE, influenced by the traditions of critical pedagogy and post-colonialism, aims to unmask processes that hide differences, exacerbate inequality and marginalise. It does so by supporting learners to examine the sources of their deeply held assumptions and expose contemporary manifestations of power embedded in practice, leading towards responsible and ethical action. However, researchers and practitioners risk using ‘criticality’ as a floating signifier, devoid of meaning, reifying overtly rational approaches (Brookfield, 2009). Johnson and Morris (2010) argue the role of affect differentiates critical pedagogy from notions of critical thinking. This refocuses attention on lived experience: in particular, “how notions of consciousness, ideology, and power enter into the way human beings constitute their day-to-day realities” (Giroux, 1980, p.348).

From this view, critical ESD/GC should not simply be concerned with developing ‘critical thinking’ among teachers but also critical being, “which embraces critical reason, critical action and critical self-reflection” (Barnett, 1997, p.105). This challenges the assumption that learners are capable of engaging in abstract critical reflection in which they are disconnected from their own experiences. Indeed, such reflective, constructivist approaches serve to separate the subject from the environment, viewing the individual as the central actor in the processes of meaning-making. Learning is thereby perceived to be independent and autonomous rather than connected and relational.

Similarly, the transformative aspects of ESD/GC discussed here elucidate ‘how’ we know rather than ‘what’ we know, with a particular focus on tacit, aesthetic and relational ways of knowing. For transformative learning conceived holistically in this way (Bamber, 2016), knowing emerges from a way of being, not vice versa, and is redolent of the suggestion that “we don’t think our way into a new kind of living; rather we live our way into a new kind of thinking” (Palmer, 1980, p. 57). From this view, education must be concerned less with knowledge acquisition and more with supporting individuals as they move into alternative modes of being, elevating the importance of existential change for the learner,

as regards both their way of being in the world and ways of knowing that world (Bamber, 2016).

A particular focus for the UK Teacher Education Network for ESD/GC, renamed in 2012 as the UK Teacher Education for Equity and Sustainability Network (TEESNet), has been to embed ESD/GC in the ethos, curriculum and assessment of teacher education (Inman et al., 2011, p. 151). Drawing upon the work of TEESNet over the last decade, this paper takes the overarching themes of values, curriculum and assessment in turn, and explores how each of these is being reconceptualised and revisioned in the context of holistic, critical and transformative approaches to ESD/GC across a range of settings internationally. These case studies, originally shared at TEESNet annual conferences, have since been published in full (Bamber, 2020) and are now freely available online Open Access via a Creative Commons License.

Values for ESD/GC

International efforts to improve education have recently moved beyond ‘values-neutral’ goals such as universal ‘access to education’. The World Education Forum concluded that “quality education” is characterised by “the skills, values and attitudes that enable citizens to lead healthy and fulfilled lives, make informed decisions, and respond to local and global challenges” (UNESCO, 2015). At the same time, UNESCO’s vision for GCE emphasises holistic aspects of learning, acknowledging education must move “beyond the development of knowledge and cognitive skills to build values, soft skills and attitudes among learners that can facilitate international cooperation and promote social transformation” (UNESCO, 2014, p. 9). Values have also been invoked to address challenges of social cohesion, radicalisation, and citizenship internationally (UNESCO, 2016b), in Europe (EC, 2015) and across a range of national settings, including US, Canada, Germany and Australia (Peterson & Bentley, 2016). Statutory requirements to promote explicit values opens up a space for critical democratic engagement, creating possibilities for nurturing criticality (Bamber et al., 2018b). Despite this interest in values education, a recent call for developing a research-based approach to teacher education for ESD/GC highlighted how little is known about teachers’ values within ESD/GC (Scheunpflug, 2011, p. 37). This is particularly surprising since teachers have been identified as an established strength of pedagogy for global social justice (Bourn, 2008, p. 11).

Interestingly, values-based themes did not emerge as important in a recent mapping of global citizenship research in teacher education (Yemini, 2019). This may result from a reluctance to confront controversial issues in the classroom (ibid, p.87). Certainly, evidence exists that beginning teachers lack the required subject knowledge and confidence to teach such topics effectively (Bamber et al., 2018b). At the same time, some object to the idea that the educator’s role is to mould ‘certain kinds of people’ according to certain values and attitudes. Education in general, and ESD/GC in particular, is deeply value-laden and, whether consciously or unconsciously, values underpin practice. Confronted with challenging situations or controversial issues in the classroom, student teachers draw upon complex professional knowledge, much of which is tacit, bound up with one’s own goals, beliefs and values. While educators may wish to avoid being accused of dogmatism or bias,

“the sobering reality is that all teachers are indoctrinators for a ‘doctrine’ is a ‘teaching’ and to ‘indoctrinate’ is to lead others into that ‘teaching’” (Pike, 2011, p. 184). Nevertheless, the imposition of values can clearly fail to inspire commitment to those values (Bamber et al., 2018b). International attempts to mainstream ESD/GC will expose further the gap between the values-driven orientation of ESD/GC and how this is enacted in practice.

In the next paragraphs, the discussion will explore the role of educators as agents of change. A strong discourse within GCE in particular postulates the existence of a continuum of participation from awareness of issues to action that challenges injustice (Bourn, 2015). This perspective is reinforced in the OECD framework for measuring global competency. Particular knowledge, skills and attitudes are pre-defined as central to global competency and are now being measured through young people self-reporting on their involvement in a set of particular and pre-determined activities (OECD, 2016 p. 32). The understanding of ESD/GC developed here refocuses attention on the learners’ being alongside their agency. This discussion interrogates the role of teacher education in cultivating values and virtues, moving beyond developing awareness of issues and values transmission towards ensuring critical engagement and action.

Scoffham (2020) and Clark (2020) investigated the formation of teachers and teacher educators with respect to values. Scoffham explored how teacher educators in a university setting foreground values and deeply held principles in their everyday work. Through a participatory methodology, notions of “community, respect, knowledge, evidence and innovation” emerged as being particularly important to teacher education in this setting. These core values are shown to provide the foundations for ESD, enabling ESD to be considered beyond “a narrower set of considerations”. A recent systematic literature review of approaches to embedding sustainability in teacher education (Evans et al., 2017) found only one of 151 studies that investigated the implementation of ESD across an institution of teacher education. Scoffham’s work therefore provides an important and much-needed illustration of a systemic approach to ‘institutionalise’ ESD.

Clark also highlights the complexity of the process whereby particular values are explored and lived out in educational settings. Her case study of a school whose ethos is underpinned by the five core values of “Respect, Co-Operation, Compassion, Honorable Purpose and Stewardship” illustrates the importance of ‘acting out’ these values in the governance, systems, and relationships of school life. While emphasising that a meaningful curriculum must move from cognitive to affective, she concludes that educators need the time and space to reflect upon and identify the values which are meaningful to them. Clark echoes Scoffham in concluding that values provide an essential moral compass for ESD that must be continually re-assessed and re-affirmed.

Witt and Clarke (2020a) illustrate the potential for ‘eco-playful pedagogy’ and ‘small world play’ to develop the knowledge, skills, and values of pre-service teachers. Providing a bridge into thinking about ‘curriculum for ESD/GC’ in part 2 of this paper, they use the metaphor of the curriculum as a ‘vortex’ to represent the dynamic processes involved in planning holistic learning for children. They identify the centrality of values such as curiosity, creativity, openness, imagination and responsiveness alongside care and love for the subject. Their conclusion, that nurturing the relationship between children and their

environment empowers them to act for that environment, is equally applicable to the pre-service teachers and teacher educators involved in this work.

Curriculum for ESD/GC

The challenges of developing curricula that cultivate the holistic, critical and transformative dimensions of ESD/GC are extensive and run deep. For instance, attempts to educate global citizens and internationalise the curriculum have become ubiquitous across a range of countries, as institutions of formal education seek to enhance both the learning experience and student employability. Marketisation in higher education has encouraged transactional approaches that, arguably, cultivate global workers rather than global citizens (Hammond & Keating, 2018). Initiatives that demand international travel and which seek to nurture intercultural learning, such as study abroad and International Service-Learning, are increasingly the subject of scholarly scrutiny (Bamber, 2016). Distinctions have been made between liberal and transformative interpretations of resultant curricula, and how they are enacted (Clifford & Montgomery, 2015). However, to illustrate the lack of clarity and theoretical limitations of work in this area, Clifford and Montgomery's definition of the global citizen as the "personification of a transformative internationalised curriculum" (2015, p. 47) is not related to discourses of (global) citizenship and invokes a colonising and exclusive notion of global citizenship.

At the heart of approaches to ESD/GC explored in this paper are processes such as shared reflection, immersion, deliberation, and exchange which are inimical to pedagogies and curricula which pre-specify learning outcomes (Bamber, 2016). For example, the curriculum objective of encountering the other may predispose the learner to simply confirm previously held suppositions. The first part of this paper provided examples of how values and virtues emerge through lived experience: transformative learning that occurs when it is least expected. From this view, 'not looking' for learning becomes a strength and informal, marginal, or liminal spaces and times can become the priority. This place demands upon educators who must be able to identify this learning as it becomes manifest. Educators must therefore become accustomed to living alongside and sharing experiences with their students in order to fully understand them.

This presentation highlights the importance of tackling complex and controversial issues such as climate change with the youngest learners: considering curricula and pedagogy that is age-appropriate and sensitive, preparing children for an uncertain but more hopeful future. The Bat Conservation Project (Nikiforidou et al, 2020a) linked young children in England and Kenya to provide an innovative model of professional development for teachers and practitioners in early childhood. This project concluded this approach supported educators committed to the principles of sustainable development to gain the knowledge and confidence to incorporate ESD/GC within their work.

Witt and Clarke (2020b) also focus upon the role of experiential and aesthetic education in their study of imaginative and storied encounters with places and the natural world. Advocating a creative approach to the curriculum they offer compelling illustrations of sensory and immersive experiences that enable young people and student teachers to

(re)imagine new relationships with places through play, imaginative exploration and discovery.

Assessment for ESD/GC

A preoccupation with easily-measured short-term outcomes, rather than longer-term changes in behaviour, values, attitudes, and practices, presents a threat to education in general and to ESD/GC in particular. The final part of this discussion will challenge educators to rethink what they value as outcomes from education and consider that “measurable outcomes may be the least significant results of learning” (McNeil, 1986, p. xviii). Building upon the analysis in parts 1 and 2, this section examines the assessment of values and curriculum, providing an important contribution to growing interest in the research and evaluation of ESD/GC (Bourn et al., 2017). Given that values and attitudes play a significant role in translating aspirations for ESD/GC into practice, they must necessarily become a focus for monitoring and evaluation in this field.

The complexity of approaches to global issues and the associated values required of young people indicate that such global metrics over-simplify. It is similarly problematic that progress towards SDG target 4.7 is being measured through blunt proxy indicators such as whether particular concepts, for example human rights and gender equality, have been mainstreamed in the curriculum (UNESCO, 2016a, p. 287). Not only does this approach fail to account for how such curricula are taught in practice, it also focuses largely on universal human values, such as human rights, gender equality, cultural diversity, tolerance and environmental sustainability. Moreover, it fails to recognize the liquidity, historicity, and evolution of difference (Bamber et al., 2018a).

The drive to secure international data for comparison perpetuates the use of quantitative measures, generated by Western multilateral agencies (King, 2017) through studying the Western context (Salzer & Roczen, 2018). This contradicts the principles of ESD/GC. Well-chosen indicators from national as well as international surveys can of course be compelling drivers for change. It is important, however, to anticipate the unintended consequences of deploying particular measures. For instance, the focus on outcomes in numeracy and literacy that seek to ‘level the playing field’ has led to the narrowing of curricula, particularly in schools ‘catching up’ in the core areas. Attempts to make educational phenomena and processes explicit can easily become overdetermined by metrics that become perverse ends in themselves. Indeed, Hannah Arendt called upon educators not to predict the needs of the future and inhibit what cannot be foreseen. Educators should instead prepare their students “in advance for the task of renewing a common world” (1977, p. 177):

Our hope always hangs on the news which every generation brings; but precisely because we can base our hope only on this, we destroy everything if we so try to control the news that we, the old, can dictate how it will look.
(Arendt, 1977, p. 192)

The OECD has already stated that exploring “new methods to improve the measurement of the value dimension of global competence” (OECD, 2018, p. 38) is a priority for PISA going forward. Teacher education for equity and sustainability does not require students, teachers or researchers to seek correct answers. It involves a spectrum of possibilities rather

than a search for one thing. The scenarios for measuring global competence in PISA have therefore been criticised for suggesting “socially desirable reactions (according to Western standards)” (Salzer & Roczen, 2018, p. 13). Indeed, ESD/GC must find a space for the unexpected and the tacit, aesthetic and relational aspects of learning (Bamber, 2020). This is a significant challenge within current educational structures that resist change and prevent the envisioning of alternatives. Amidst a culture of accountability and measurability in formal education, this understanding of education has implications for the assessment of learning that demands radical solutions. A particular challenge is to ensure monitoring and evaluation of ESD/GC interventions are consistent with the values of ESD/GC itself.

In what follows, this paper illustrates creative and innovative strategies to overcome the constraints of institutional assessment mechanisms and move beyond individual assessment. It explores attempts to facilitate and assess cooperative learning and forms of knowing, being and doing that emerge through working collaboratively, demonstrating the role of assessment in nurturing the learners’ ongoing becoming. The discussion will draw upon empirical evidence to substantiate different aspects of this argument, reiterating the importance of a critical scholarly approach to assessment for ESD/GC. Educators should consider whether they require professional (un)development in structuring and facilitating tasks such as these with which they are unlikely to be familiar (Bamber, 2020).

Historically, civil society organisations (CSOs) working in the areas of environmental, development, sustainable development, human rights, peace and other adjectival educations have played a critical role in promoting teacher education for sustainable development and global citizenship, in the UK (Bamber et al., 2016) and internationally (Bourn et al., 2017). The work of CSOs is a significant feature of work featured here that includes empirical findings from CSO-led international projects. It is argued that measures of learning conveying objectivity and quantifiability undermine ESD/GC founded upon values. Where evaluation is imposed, for instance by external funders, clarity and transparency is necessary to capture detrimental unintended consequences.

Nikiforidou et al. (2020b) examine the assessment of value formation early in life. Drawing upon evidence from cross-cultural ESD projects in Kenya and England, they review the Environmental Rating Scale for Sustainable Development in Early Childhood (ERS-SDEC) as a research/self-assessment tool for practitioners. The authors, which are composed of all members of the World Organisation for Early Childhood (OMEP), highlight ways in which the scale provides a shared language for rating and celebrating ESD work in early childhood settings. Different orientations towards elephant conservation in Kenya and England exemplify the problematic nature of adopting Western-centric metrics on an international scale.

The final case study (Lowe & Allum, 2020) reflects upon the use of the assessment toolkits ‘How do we know it’s working?’ (Allum, Lowe & Robinson, 2008) and ‘Are we nearly there yet? A self-evaluation framework for Global Citizenship’ (Allum, Lowe and Robinson, 2010) within a large EU-funded project in the UK, Ethiopia, Czech Republic, Slovakia and Ireland. Demonstrating the significance of local values and ideologies in the mediation and enactment of ESD/GC (Bamber et al., 2016), this case study outlines how methodologies were adapted to suit different international contexts through a ‘discursive

community’ of stakeholders. It is concluded that ensuring evaluation tools remain open to critique distinguishes assessment for ESD/GC from mainstream approaches.

Conclusion

This paper takes forward understanding of the ‘holistic’, ‘critical’ and ‘transformative’ dimensions of ESD/GC as they relate to the role of values, curriculum, and assessment within teacher education. It draws upon current and ongoing research in ESD/GC, engages with broader theoretical and methodological perspectives, and provides focused studies that propose recommendations for policy and practice. Whilst the scope for implementing teacher education for equity and sustainability in ways that promote transformational rather than transactional forms of education appear to be narrowing, this presentation highlights tensions that pull against these current trends. These include the naming of values within policy to address challenges facing society and the development of innovative holistic and relational methodologies. Furthermore, a willingness to pursue systemic approaches that embed ESD/GC across institutions and sectors addresses concerns that ESD/GC in teacher education is an emerging area of curricular activity driven by individual academics (Evans et al., 2017; Bourn et al., 2017). Finally, networks (be they national, regional or international) clearly have a pivotal role in sharing expertise, developing and applying theory, influencing policy-makers and monitoring progress in this field.

This discussion has detailed important empirical evidence of ESD/GC in practice including case studies that demonstrate impact on teacher educators, teachers, and their students. In doing so, it has sought to enhance understanding of how educators internationally can better understand the role of education as a public good to more effectively nurture peace, tolerance, sustainable livelihoods and human fulfilment for all.

References

- Allum, E., Lowe, B. & Robinson, L. (2008). *How Do We Know It’s Working? A toolkit for measuring attitudinal change*. Reading: RISC.
- Allum, E., Lowe, B. & Robinson, L. (2010). *Are We Nearly There? A self-evaluation framework for global citizenship*. Reading: RISC.
- Andreotti, V. (2006). Soft versus critical global citizenship education: Policy and Practice, *Development Education Review*, 3(1), pp. 40-51.
- Arendt, H. (1977). *Between Past and Future*. New York: Penguin.
- Bamber, P. (Ed) (2020) *Teacher Education for Sustainable Development and Global Citizenship Education*. New York: Routledge. Available here: <https://www.taylorfrancis.com/books/oa-edit/10.4324/9780429427053/teacher-education-sustainable-development-global-citizenship-philip-bamber>
- Bamber, P. (2016). *Transformative Education through International Service-Learning: Realising an ethical ecology of learning*. London: Routledge.
- Bamber, P., Lewin, D. & White, M. (2018a). (Dis-) Locating the transformative dimension of global citizenship education. *Journal of Curriculum Studies*, 50(2), pp. 204-230.

- Bamber, P., Bullivant, A., Clark, A. and Lundie, D. (2018b). Global Britain? Promoting 'national' values through teacher education for global citizenship. *British Journal of Educational Studies*, 66 (4), pp. 433-453.
- Bamber, P., Bullivant, A. & Stead, D. (2013). Measuring attitudes towards global learning among future educators in England. *International Journal of Development Education and Global Learning*, 5(3), pp. 5-27.
- Bamber, P., Sullivan, A., Glover, A., King, B. & McCann, G. (2016). A comparative review of policy and practice for education for sustainable development/education for global citizenship (ESD/GC) in teacher education across the four nations of the UK. *Management in Education*, 30(3), pp. 112-120.
- Barnett, R. (1997). *Higher Education: a critical business*. Buckingham, Open University Press/SRHE.
- Belgeonne, C., Clough, N., Inman, S., Rogers, M. & Warwick, P. (2014). Education for sustainable development and global citizenship: good practice case studies in teacher education. Available at: <https://www.heacademy.ac.uk/system/files/resources/esdgc_casestudiesinteacher_education.pdf>.
- Bourn, D. (2008). Introduction. In: D. Bourn(ed.), *Development Education: Debates and dialogues*, 1-17. London: Institute of Education.
- Bourn, D., Hunt, F. & Bamber, P. (2017). *A review of Education for Sustainable Development and Global Citizenship Education in Teacher Education*. Paris: UNESCO. Available at: <<http://unesdoc.unesco.org/images/0025/002595/259566e.pdf>>. Accessed 27th January 2018.
- Brookfield, S. (2009). Engaging Critical Reflection in Corporate America. In: J. Mezirow and E. Taylor(eds), *Transformative Learning in Practice: Insights from Community Workplace and Higher Education*, 125-135. San-Francisco: Jossey-Bass.
- Clark, A. (2020). How Do Teachers Engage with School Values and Ethos? In: Bamber, P. (Ed) *Teacher Education for Sustainable Development and Global Citizenship Education*, 32-39. New York: Routledge.
- Clarke, H. & Witt, S. (2020a). Into the Vortex: Exploring Curriculum Making Possibilities that Challenge Children's Responses to Extreme Climate Events. In: Bamber, P. (Ed) *Teacher Education for Sustainable Development and Global Citizenship Education*, 74-86. New York: Routledge.
- Clarke, H. & Witt, S. (2020b). Seeking to Unsettle Student Teachers' Notion of Curriculum: Making Sense of Imaginative Encounters in the Natural World. In: Bamber, P. (Ed) *Teacher Education for Sustainable Development and Global Citizenship Education*, 132-143. New York: Routledge.

- Clifford, V. & Montgomery, C. (2015). Transformative Learning Through Internationalization of the Curriculum in Higher Education. *Journal of Transformative Education*,13(1), pp. 46-64.
- European Commission (2015). *Promoting citizenship and the common values of freedom, tolerance and non-discrimination through education*. Paris: European Commission.
- Evans, N., Stevenson, R., Lasen, M., Ferreira, J. & Davis, J. (2017). Approaches to embedding sustainability in teacher education: A synthesis of the literature. *Teaching and Teacher Education*,63, pp. 405-417.
- Fricke, H. J and Gathercole, C. (2015). *Monitoring Education for Global Citizenship*. Brussels: DEEEP.
- Giroux, H. (1980). Critical theory and rationality in citizenship education. *Curriculum Inquiry*, 10(4), pp. 329–66.
- Goren, H. and Yemini, M. (2017). Global citizenship education redefined – A systematic review of empirical studies on global citizenship education. *International Journal of Educational Research*, 82, pp. 170-183.
- Hammond, C. and Keating, A. (2018). Global citizens of global workers? Comparing university programmes for global citizenship education in Japan and the UK. *Compare: A Journal of Comparative and International Education*, 48(6), pp. 915-934.
- Hunt, F., Li Ting Chung, H., Rogers, M. et al. (2011). *Taking Stock: A report from the UK Teacher Education Network for sustainable development (ESD)/global citizenship (GC) – survey on provision for ESD/GC in initial teacher education in the UK*. London: London South Bank University.
- Inman, S., Mackay, S. and Rogers, M. (2011). Developing Values and Purposes in Teachers for a Better World: the experience of the United Kingdom Teacher Education Network for Education for Sustainable Development/Global Citizenship. *Citizenship, Social and Economics Education*, 10(2&3), pp. 147-157.
- Intergovernmental Panel on Climate Change (2018). *Global Warming of 1.5°C*. Switzerland: IPCC. Available at: https://www.ipcc.ch/site/assets/uploads/sites/2/2018/07/SR15_SPM_High_Res.pdf.
- Johnson, L. and Morris, P. (2010) Towards a framework for critical citizenship education. *The Curriculum Journal*, 21(1), pp. 77-96.
- King, K.(2017). Lost in translation? The challenge of translating the global education goal and targets into global indicators. *Compare: A Journal of Comparative and International Education*, 47(6), pp. 801-817.
- Lowe, B. and Allum, L. (2020). Measuring Teachers' Impacts on Young Peoples' Attitudes and Actions as Global Citizens. In: Bamber, P. (Ed) *Teacher Education for*

- Sustainable Development and Global Citizenship Education*, 197-216. New York: Routledge.
- Mannion, G., Biesta, G., Priestley, J. and Ross, H. (2011). The global dimension in education and education for global citizenship: genealogy and critique. *Globalisation, Societies and Education*, 9(3-4), pp. 443-456.
- McGrath, M. (2018). Final call to save the world from ‘climate catastrophe’. BBC News, 8 October. Available at: <<https://www.bbc.co.uk/news/science-environment-45775309>>.
- McNeil, L. (1986). *Contradictions of control: School structure and school knowledge*. New York: Routledge & Kegan.
- Nikiforidou, Z., Lavin-Miles Z. and Luff, P. (2020a). Bat Conservation in the Foundation Stage: An Early Strat to Education for Sustainability. In: Bamber, P. (Ed) *Teacher Education for Sustainable Development and Global Citizenship Education*, 122-131. New York: Routledge.
- Nikiforidou, Z., Lavin-Miles Z. and Luff, P. (2020b). Rating Education for Sustainable Development in the Early Years: A Necessity or a Challenge?. In: Bamber, P. (Ed) *Teacher Education for Sustainable Development and Global Citizenship Education*, 169-176. New York: Routledge.
- OECD (2016). *Global competency for an inclusive world*. Paris: OECD. Available at: <<https://www.oecd.org/pisa/aboutpisa/Global-competency-for-an-inclusive-world.pdf>>.
- OECD (2018). *Preparing our youth for an inclusive and sustainable world: The OECD global competence framework*. Paris: OECD.
- Oxley, L. & Morris, P. (2013). Global Citizenship: A Typology for Distinguishing its Multiple Conceptions. *British Journal of Educational Studies*, 61(3), pp. 301-325.
- Palmer, P. (1980). *The Promise of Paradox*. San Francisco: Jossey-Bass.
- Peterson, A. & Bentley, B. (2016). Securitisation and/or Westernisation: dominant discourses of Australian values and the implications for teacher education. *Journal of Education for Teaching*, 42(2), pp. 239-251.
- Pike, M.A. (2011). Ethics and citizenship education. In: J. Arthur (ed.), *Debates in Citizenship Education*, 181-193. London: Routledge.
- Salzer, C. & Roczen, N. (2018) Assessing global competence in PISA 2018: Challenges and approaches to capturing a complex construct. *International Journal of Development education and Global Learning*, 10 (1), pp. 5-20.
- Scheunpflug, A. (2011). Global education and cross-cultural learning: A challenge for a research-based approach to international teacher education. *International Journal of Development Education and Global Learning*, 3(3), pp. 29-44. Available at: <https://unstats.un.org/sdgs/indicators/Global%20Indicator%20Framework%20after%20refinement_Eng.pdf>.

- Scoffham, S. (2020). In Search of Core Values In: Bamber, P. (Ed) *Teacher Education for Sustainable Development and Global Citizenship Education*, 23-31. New York: Routledge.
- UNESCO (2014). *Global Citizenship Education: Preparing learners for the challenges of the 21st century*. Paris: UNESCO. Hunt
- UNESCO (2016a). *Global Education Monitoring Report. Education for people and planet: Creating sustainable futures for all*. Paris: UNESCO.
- UNESCO (2016b). *A Teacher's Guide on the Prevention of Violent Extremism*. Paris:, UNESCO.
- UNESCO (2018). *Progress on Education for Sustainable Development and Global Citizenship Education*. Paris: UNESCO.
- United Nations Statistical Commission (2018). *Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development*. New York: United Nations. Available at: <https://unstats.un.org/sdgs/indicators/Global%20Indicator%20Framework%20after%20refinement_Eng.pdf>.
- Yemini, M., Tibbitts, F. and Goren, H. (2019). Trends and caveats: review of literature on global citizenship education in teacher training. *Teaching and Teacher Education*, pp. 77-89.