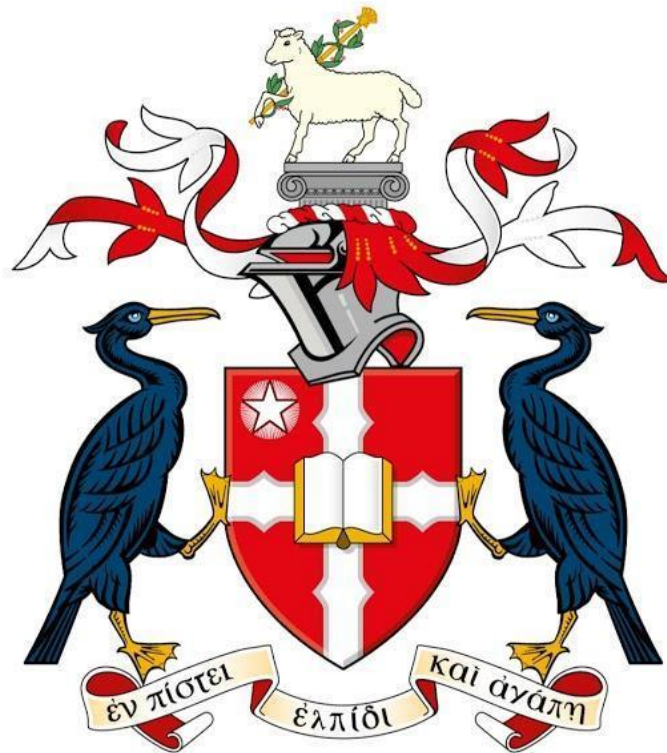




LIVERPOOL HOPE UNIVERSITY

**A phenomenographic analysis of how mature students accessing higher education in
further education colleges experience flipped learning**

**Thesis submitted in accordance with the requirements of Liverpool Hope University
for the degree of Doctorate in Education**

Irene Elizabeth Rose

27th April 2023

Author's Declaration

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This thesis is being submitted in partial fulfilment of the requirements for the degree of Doctorate in Education.

Signed:  (Candidate) Date: 27th April 2023

Dedication

For Mary, Walter and Derek.

To Craig.

Acknowledgements

I owe an enormous debt of gratitude to my supervisors – Prof. Lin Norton, Dr. John Tilson and Dr. Catherine O’Connell. Their patience, support, wise counsel and good cheer has kept me going when I thought I would not make it. It has been my pleasure to be supervised by you all.

Abstract

A phenomenographic analysis of how mature students accessing higher education through further education colleges experience flipped learning

The experiences of mature students accessing higher education through further education (HE in FE) is an under researched area. None-the-less, growing this provision has been a policy goal for several governments (Bullock & Henry, 2023). Concomitantly, over the past two decades flipped learning (FL) has come to be appreciated as a pedagogy that is well suited to meeting the pedagogic and employment skills aims of HE (Advance HE, 2017; Griffiths et al., 2018; Lage et al., 2000; Talbert, 2017).

In recognition of the above, this thesis presents a phenomenographic analysis of students' experiences of FL on a HE in FE course. Analysis of ten semi-structured interviews was conducted to answer the research question: How do students conceptualise their experience of flipped learning? Phenomenography was selected as its focus is the people experiencing reality, rather than the phenomena being experienced (Marton, 1981). Phenomenographic analysis yielded four qualitatively different conceptions of the experience of learning via FL. Students conceptualised their experience of FL as A) having to take responsibility for your own learning, B) engaging with others and taking their knowledge, C) engaging with others and sharing and exchanging knowledge with them and D) acquiring, building and enhancing academic and professional skills. While elements of the findings support previous studies on FL, this research demonstrates that FL is particularly well suited to support the learning of mature students studying HE in FE.

Findings indicated that FL offers opportunities to be more inclusive than traditional blended learning and is well suited to support students in taking responsibility for their learning. Additionally, findings suggested that FL offers more opportunities for positive emotional engagement in learning than traditional blended learning. For instance, with FL being experienced as creating 'productive pressure' and with learning being described as 'fun'. Finally, reflecting on the research process the thesis offers elaborations on phenomenographic analysis that are likely to assist future phenomenographers.

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1. INTRODUCTION

1.1 Research background

The experiences of mature students accessing higher education through further education (HE in FE) is an under researched area. None-the-less, growing this provision has been a policy goal for several governments (Bullock & Henry, 2023). The percentage of mature students studying HE in FE has nearly doubled, from 7.8% in 2010/11 to 14.3% to 2019/20. While these figures demonstrate that this option of accessing HE is appealing to mature students, in recent years there has been a steady decline in mature students' numbers from 28,240 in 2015/16 to 25,960 in 2019/20 (Office for Students, (OfS) 2021). This has led the OfS (2018; 2023) to make improving access to and increasing participation of mature students in HE one of its priorities. Thus, this provision will also be important to the wider HE sector.

The OfS (2021) note that access to HE in FE is particularly important for mature students. However, it is also acknowledged that there are specific barriers to learning for mature students (Burton et al., 2011) and that a higher proportion of mature students than young students accessing HE are disabled (Hubble & Bolton, 2021). Therefore, those providing educational provision in HE in FE should be aware that within this cohort more students are likely to have impairments. Relatedly, prior to the move to grow HE in FE provision, changes to the Disabled Students Allowance (2016) signalled the move to ostensibly encourage systemic and pedagogic change to undo ableism in the UK HE sector. This resulted in inclusive teaching and learning in HE being proposed as a route to excellence within UK HE institutions (Disabled Student Sector Leadership Group, 2017). Thus, in view of these factors, it would be prudent for educators providing HE in FE to seek to maximize the accessibility of their provision.

Alongside this, debate about the most suitable pedagogical approach for effective university teaching have existed since pedagogic research started to interrogate the traditional transmissive lecture and it was found wanting (Biggs & Tang, 2011; Bligh, 2000). Within this debate, flipped learning (FL) has emerged as a blended and active learning approach that enthusiasts contend is a suitable pedagogic approach to meet the challenge of delivering appropriate university level learning and employment key skills development within a digital world (Talbert, 2017; Väisänen & Hirsto, 2020) while being accessible for a diverse student body (Lage et al., 2000). Although it should be noted that the idea of the role of university being suitable for the development of employment skills is contested (Ashwin, 2020). Additionally, interest has developed in the differences experienced in teaching higher education (HE) courses in further education colleges (FE) in relation to the notion of whether a distinctive pedagogy is required for this mode of delivery to mature students (Greenwood, 2011). However, there appears to be little consideration of a distinct pedagogy for delivering HE in FE beyond more centralised discussions considering what has subsequently been termed the 'false dichotomy'

of the pedagogy versus andragogy debate in HE in general (Knowles, 1980, p. 43 in Holmes & Abington-Cooper, 2000, no pagination). This research enquiry sits at the juncture of these broader concerns: supporting the participation of mature students, the selection of suitable pedagogic approaches for supporting a diversity of learners, the selection of appropriate pedagogic approaches to support learners' in the specificities of their particular circumstances and the consideration of whether – from students' perspectives - FL is experienced as a supportive pedagogical approach when engaging with HE in FE.

1.2 Researcher context, positionality and professional values

Jacobson and Mustafa note that in qualitative research, positionality is presented as a fundamental aspect of reflexivity (Jacobson & Mustafa, 2019). As such I present my positionality and values here as part of this reflexive process.

I am a professional tutor in Special Educational Needs (SEN) at the university in the North West of England where I have conducted this research. As part of its outreach provision, the university is in partnership with FE colleges to offer higher education courses to communities that would otherwise not have this provision. The student body is mostly female, typically at a high ratio. For the second-year cohort in the academic year the research was conducted (2018/2019) the female to male student ratio was 24: 1, with the cohort comprised of forty-eight female students and two male students. This is reflected in the research sample as all participants are female mature students, approximately aged between mid-twenties to mid-fifties, who are accessing higher education via the partnership agreement between the university and two sixth form colleges in the students' locales. At the time of conducting this research I taught across all three years of the SEN course at one of the colleges and was also year lead for the second year. The second year had two classes at one college (locale A; A1 & A2) who were taught on different evenings, and one class at the other college (locale B). In addition to being year lead for the entire cohort, I taught both classes in locale A, while a colleague taught the class in locale B. Prior to this research, the typical timetable for the cohort was as per Figure 1.

The inspiration for this research inquiry comes from my role and responsibilities as year lead for this second-year course and cohort. I wanted to improve student access to and support for learning through converting the curriculum to FL. At this time, I understood FL to involve a re-ordering of learning activities and based on this I identified it as a potentially more appropriate pedagogy for mature learners returning to education to access degree courses via outreach provision.

Typical Timetable for Outreach Blended Learning Provision		Each session is allocated 6 hours	
Week 1	Week 2	Typically:	
SEN Face – to –Face 6pm – 9pm	Education Face – to –Face 6pm – 9pm	Before Class Activities	2 hours
		During Class Activities	3 hours
		After Class Activities	1 hour

Education Independent Learning Activities	SEN Independent Learning Activities	Independent Learning Activities	6 hours

Figure 1: Typical timetable for outreach blended learning provision

The decision to convert the curriculum to FL is imbedded in my positionality as a Disability Studies tutor, which in turn influences my professional values and how I conceive of HE and my role within it. As a professional educator within Higher Education I agree with Biesta's (2007) assertions that educational research and practice should be value based and aimed at deliberating upon what is educationally desirable. People have many values of various kinds which are important in their decision making with Greenbank (2003, p.791) selecting 'moral, competency, personal and social values' as important for education. As this mix of values influence people's behaviours and attitudes, both a practitioner researcher's pedagogy and research will be influenced by these values.

Brighouse et al., (2016, p.6) suggest that what ultimately matters in value based educational decision-making based on the distribution of educational goods is 'the creation and distribution of opportunities for people to flourish'. They go on to posit that three popular interdependent distributive values relating to educational goods as a whole are adequacy, equality and distributing educational goods to most benefit those who have the worst prospects for flourishing i.e. the less advantaged (Brighouse et al., 2016, p.12). They suggest that when aiming to bring about one or more of these distributive values, educators can make decisions relating to 'how to allocate their time, energy and attention within the classroom and to what end' (Brighouse et al., 2018, p.31). Thus, the process of deliberation I go through to come to the decisions I make in putting my values into both my professional practice and my research practice are as illustrated in Figure 2.

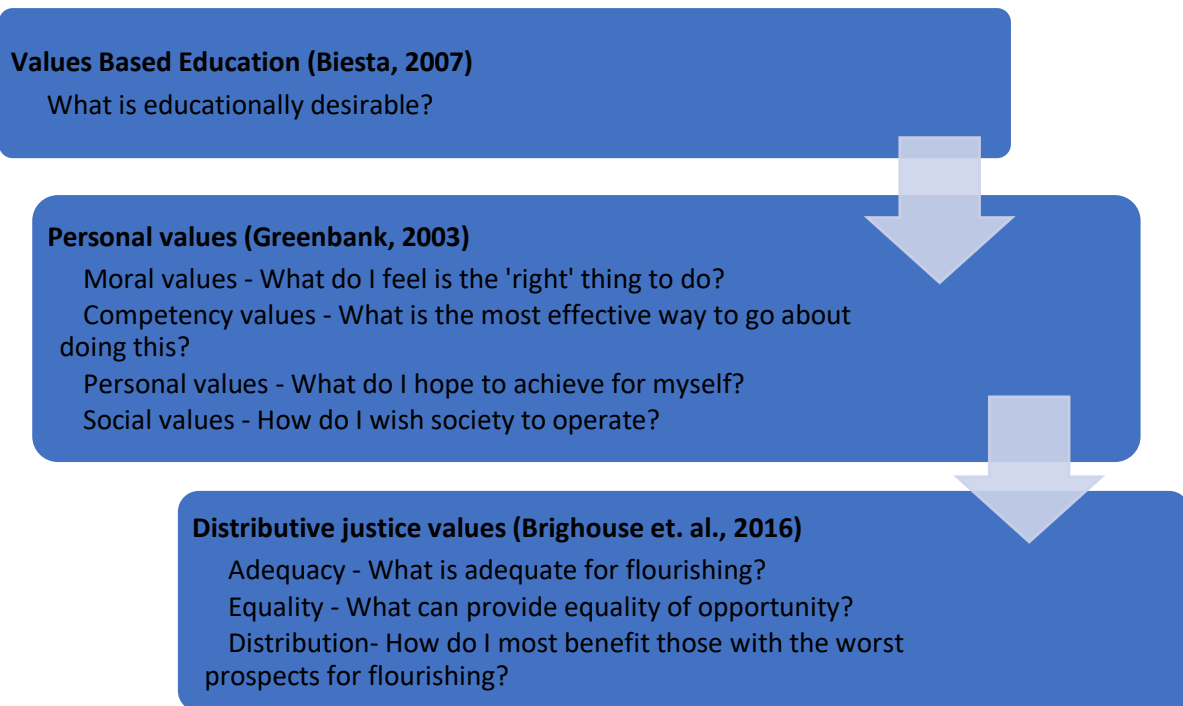


Figure 2: Questions asked in considering my personal and education values in my pedagogic decision-making process

However, in the adherence to or the application of my values to practice and research, my values may come into conflict because both pursuits are conducted 'within the constraints of higher education providers' (Gibbs, 2019, p. 411). Indeed, it is within these constraints that all my educational decision making takes place be that for my practice or my research. Thus, it was within this context that I had to balance my ambition of designing a more accessible and supportive course against the constraints put upon me within the institution and locale where I teach. Namely, I must adhere to University policy which currently supports the use of exams and I have to work within the physical environment of the teaching rooms as they are. Likewise, undertaking a doctorate in education that researches my practice, my research choices are influenced by the time constraints caused by working while researching. Furthermore, from a Disability Studies perspective the most desirable form of research is emancipatory research however, it is acknowledged that this approach requires support, funding and experience (Barnes & Sheldon, 2007) that made it unattractive for this research inquiry. Therefore, following Brighouse et al (2018), as a practitioner researcher my decisions about my practice and research have been constrained to making decisions about how to spend my time, energy and attention and to what end. None-the-less, as this research contends, such decisions are not without significance.

My philosophy of education follows Gibbs (2019, p. 406) who understands:

education as a learning process linked to personal development: intellectual, psychological, emotional, and social. It is about flourishing and realising potential within the constraints of context. As a learning process, it brings about change in a person's thinking and capacity to do things, and helps people to come to terms with doubt.

However, I recognise that for the cohort of students that I teach the value of their education often lies in the inherent good that enables them to accrue more social and economic capital (Gibbs, 2019). For example, a significant proportion of students on the course that I teach are teaching assistants and often refer to wanting their opinions and judgements to be given the same weight as teachers' opinions and judgements. Likewise, they express the desire to have the same remuneration as teachers for doing an equivalent job. Never-the-less, while education requiring a significant economic investment is bound to be evaluated from a perspective of economic returns, independently of this, how students are taught retains importance. For as Biesta (2007, p. 10) argues, education situated as a moral practice requires educators to think about 'the educational desirability of the opportunities for learning that follow from their actions'. Furthermore, as a lecturer in Disability Studies, the performative aspect of educational practice is centralised as there is a moral and political imperative to how the subject is taught. Namely, Disability Studies educators need to model inclusive practice to match the moral, philosophical and political demands of the subject. To fail to do so would create a contradiction that could work to undermine students' trust in the validity of the subject and the integrity of their tutors. Thus, Disability Studies educators need to consider how best to match their professional practice to the social justice demands and political commitments of subject.

Biesta (2007) notes that professionals deciding what is educationally desirable requires them to make judgements with normative dimensions. Therefore, educators are required to make decisions about the most appropriate actions within their particular circumstances which are always in some way unique. Furthermore, he emphasizes that equal consideration to the ends and means of educational practice are required and that particular consideration should be given to the educational quality of our means. Namely, Biesta (2007) asserts that educators need to consider what students will learn from the particular pedagogic strategies we use to realise our desired educational ends. To this end, FL was attractive to me as a Disability Studies scholar as even with a rudimentary understanding of FL I was aware that producing short lecture videos of key concepts that students would be exposed to before class would give students more time to assimilate key ideas, more options with how to engage with the material e.g. viewing or listening, via different devices e.g. laptop or mobile phone and would allow for repeated engagement with material to support personalised learning. Thus, FL was going to be potentially more accessible and engaging than the traditional blended learning model previously offered. Figure 3 shows how my personal and professional values led to this decision being made,

while Figure 4 shows the results of flipping the classroom in regards to the re-ordering of learning activities.

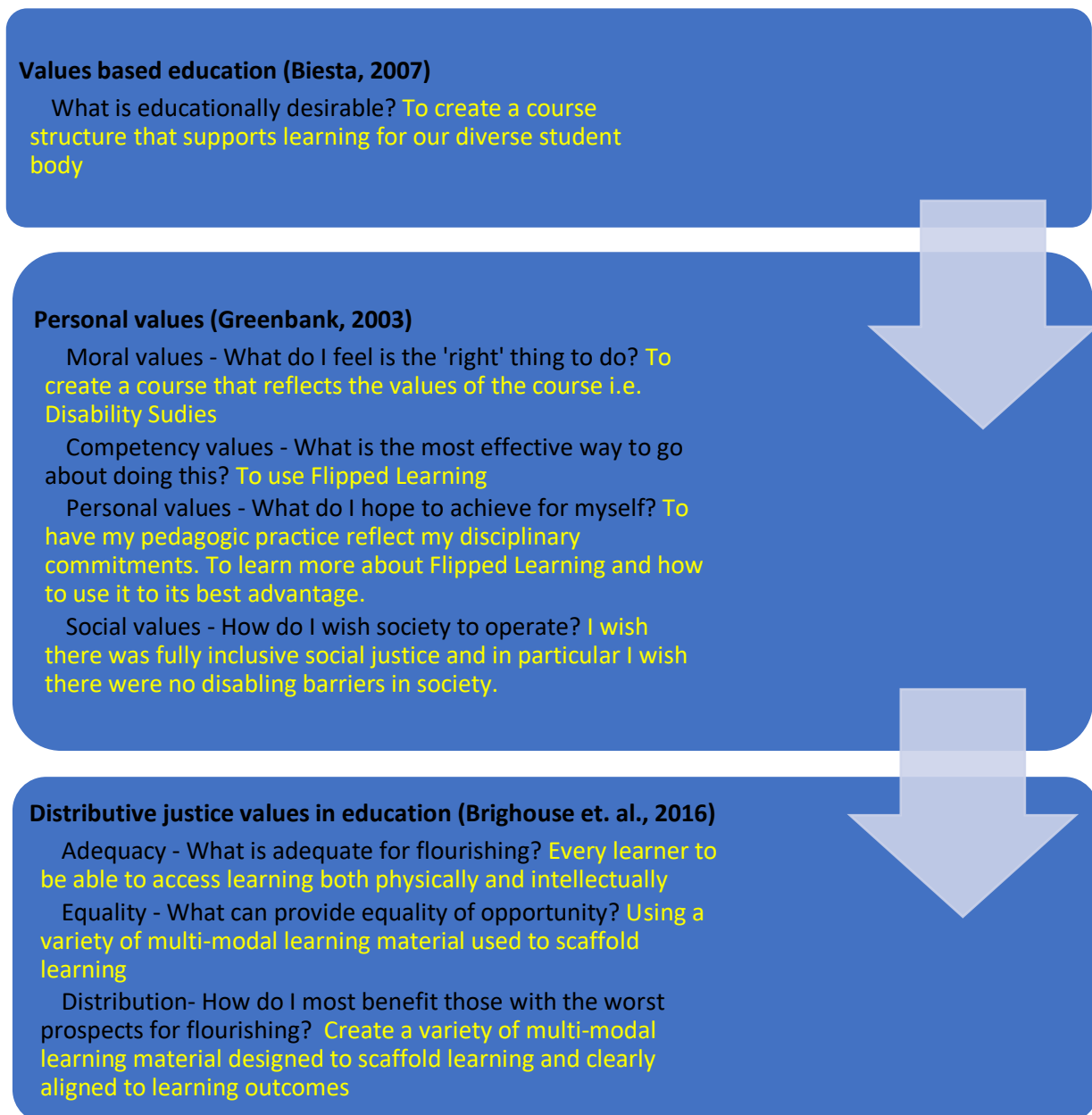


Figure 3: Answers given when considering my personal and education values in my pedagogic decision-making process

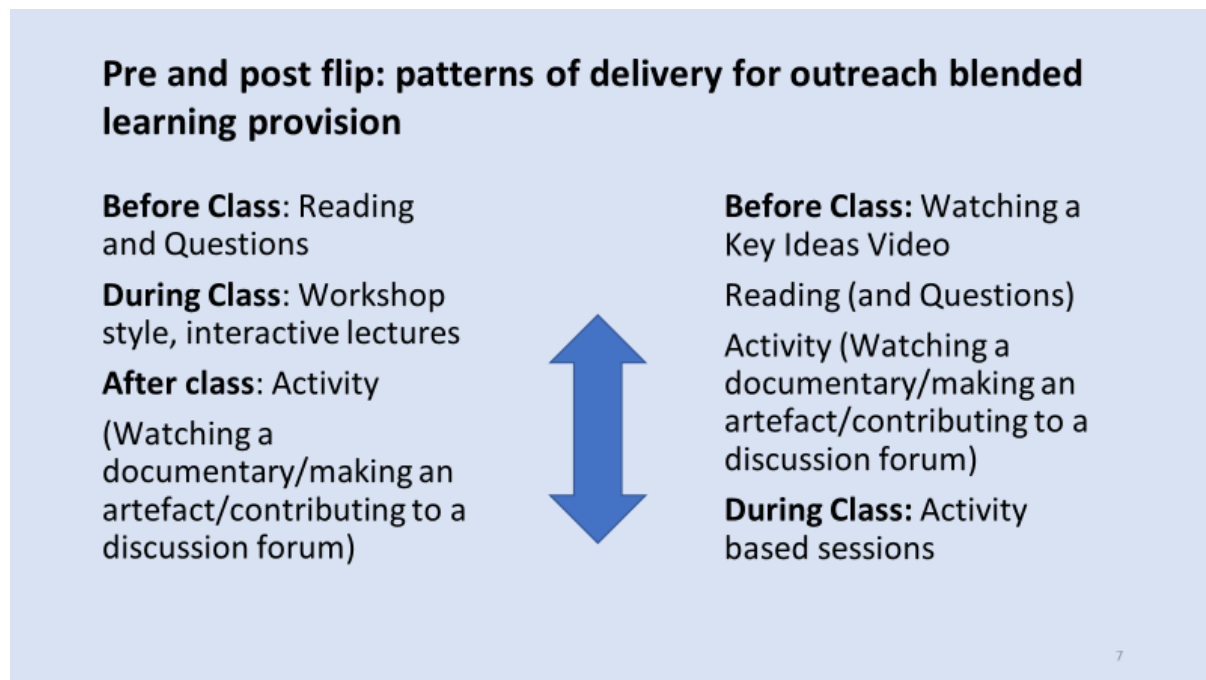


Figure 4: Pre and post flip patterns of delivery for outreach blended learning provision

1.3 Motivation and rationale for the research

This research arises from the combination of my disciplinary background, professional experience and values, and pedagogic choices taken in response to the cuts made to the Disabled Students Allowance (DSA) (Lewthwaite, 2014; Willetts, 2014). While these cuts may have led to inclusive teaching being positioned as pedagogically desirable in HE (DSSLG, 2017) the effect of these cuts has made it ethically imperative for educators to attempt to ameliorate the pedagogical short fall impacting upon students with impairments (Roberts Dunn, 2016). Thus, the decision to introduce FL onto the course was grounded in this ethical imperative and founded upon the recognition that inclusive pedagogy is effective pedagogy (DSSLG, 2017) and the idea that FL may more readily support the development of inclusive practice than more traditional HE blended learning approaches (Lage et al., 2000).

The *Inclusive teaching and learning in higher education as a route to excellence report* (DSSLG, 2017, p.9) recommends that Higher Education institutions should respond to the DSA cuts by implementing 'inclusive learning' into their curriculum design and delivery. They use this term to cover inclusive approaches in general and Universal Design for Learning (UDL) (Burgstahler, 2015). However, Dolmage (2017, p.144) cautions that in the context of a neoliberalist and ableist academy UDL risks becoming a 'defeat device' where retrofitted solutions to increase access to learning result in hiding inequality. They do so by masking ableism through providing insincere solutions, aimed at dealing with issues of access at a purely bureaucratic and legalistic level by doing the legal minimum. To remedy this issue Dolmage suggests explicitly putting disabled students at the centre of the pedagogic design process by foregrounding how teaching and learning strategies link to disability experience. While this

recommendation is noted, due to practical issues of the mature students in outreach provision being time poor and having competing commitments, the revisions instigated on the course in question were done in knowledge of disability experience rather than being grounded in actual disabled students input.

Mature students are more likely to be disabled than their younger counterparts (OfS, 2020, 2021) and report balancing their studies with other commitments as the most significant barrier that they face (MillionPlus & National Union of Students, 2012). Responsibilities to home and work life as well as responsibilities for studying would indicate that the demands made of mature students' time would render learning a stressful experience. Indeed, disregarding these commitments is cited as an area of discontent for mature students who attend university on campus (OfS, 2020). However, given the sacrifices made by mature students in relation to these commitments it is perhaps no surprise that mature students relish the opportunity to earn first degrees and value learning (Butcher, 2015, 2020; MillionPlus & National Union of Students, 2012).

Although they value their education, on campus mature students report being nervous of making contributions in class (MillionPlus & National Union of Students, 2012). This is also likely to be the case in widening participation learning where all students are mature (see Bullock & Henry, 2023) because of the heterogeneity of mature students and the variety of educational and life experiences that they bring into the classroom (MillionPlus & National Union of Students, 2012; Smith, 2008). Indeed, the mature students I have taught accessing HE in FE, often recount their previous educational experiences as negative or at the least disheartening. Thus, it is not surprising that these students would be reticent about making contributions to class.

With respect to using the technology employed in FL no difference has been found between mature students and younger students' confidence and attitudes towards the use of technology in learning (Staddon, 2020). Rather, both groups express a preference for technology that they are familiar with. Therefore, the difference between these groups is in how they use technology and which technologies they may choose to use when given a choice. As a Disability Studies tutor teaching mature students in the university's outreach programme the conjunction of these concerns motivated my professional decision to adopt FL in my teaching practice. This was done specifically to explore if FL could better meet the needs of students accessing HE in FE, be they mature, disabled or both.

1.4 What does this research contribute?

It deepens our understanding of FL from the perspective of mature students accessing a degree course through a university outreach programme that uses blended learning. It gives insights to how the potential within FL is accessed, navigated and utilised by students. However, it also provides insight

into barriers students may face in converting FL's potential into their learning reality. In this way, this research offers an alternative to the idea of students 'resisting' FL (McNally et al., 2017) by suggesting what may be barriers to access to FL for learners. Additionally, the research offers recommendations to practitioners who either already use or are considering using FL. Furthermore, in terms of the methodological approach used, the research offers recommendations to better support researchers' understandings of phenomenography and the practice of phenomenographic analysis.

1.5 Methodological framework

The methodological framework adopted in this research enquiry is phenomenography. Part of the interpretivist tradition, phenomenography seeks to establish a consensus of conceptions of experience that describe and give meaning to reality (Marton, 1981). It aims at producing "description, analysis and understanding of experiences" (Marton, 1981, p.178). The goal of phenomenographic study is to derive and categorise the limited amount of ways that people conceive of a shared experience and to catalogue the differences between these conceptions. To this end, the research questions below are aimed at deriving conceptions of experience and establishing the variation across these conceptions.

1.6 The research questions

Following the phenomenological tradition, the research questions that this research inquiry addresses are:

1. How do students¹ conceptualise their experience of flipped learning?
2. What is the variation across conceptions?
3. What can these conceptions and the variation across them tell us about student experiences of learning support in flipped learning? (i.e. what does it add to scholarship in this area?)

1.7 Thesis outline

This introduction chapter has given the background, context, motivation and rationale for this research inquiry. In doing so it has provided my researcher positionality and explored my professional values as a practitioner researcher. It has also summarised the aims of this research inquiry. The chapter concluded by introducing the methodological framework used in this inquiry and stipulated

¹ This usage of 'students' refers only to participants in this research inquiry. All participants are mature students, studying for a BA(Hons) in Education and Special Educational Needs via a University outreach programme where students study in Sixth Form or Further Education colleges and where course content is delivered via a blended learning curriculum. The delivery pattern is in a bi-weekly pattern and is comprised of 3 consecutive hours of face-to-face class time with a tutor and 3 hours of guided learning tasks (individual or group) per week with 6 hours of guided or independent study on alternate weeks.

the research questions that the inquiry addresses. Chapter two reviews the literature in the field of flipped learning, covering the origins and development of flipped learning, the methodological approaches and methods used to evaluate flipped learning and the theoretical frameworks employed across this field of research. It also presents the theoretical framework through which the results of the data analysis in this research inquiry will be evaluated. Namely, Cognitive Load Theory, Self Determination Theory (Abeysekera & Dawson, 2015) and Self-Regulated Learning (Talbert, 2017). Chapter three explains and justifies the methodological approach taken in this research inquiry and details the procedures employed in the application of phenomenographic analysis to the data set. It also details the ethical considerations that have underpinned the research and introduces and explains the idea of doing reflexive phenomenography. Chapter four presents the data analysis which is comprised of all the key components of a phenomenographical approach; the categories of description which form the outcome space for the phenomenon, unit of experience and the dimensions of variation (Marton and Booth, 1997). It also offers more detailed discussion of each of the categories of description. Chapter 5 then offers discussion of the implications of this research inquiry's findings. Finally, chapter six concludes the thesis by demonstrating how the research inquiry addresses the research questions before going on to identify the limitations of the research and making recommendations for future research.

2. LITERATURE REVIEW

2.1 Introduction

Flipped learning is perceived as lacking pedagogical underpinnings (Li et al., 2021) and is often caricatured as a simple re-ordering of learning activities (Unal & Unal, 2017). This may be due to the fact the approach is often adopted as a pragmatic solution to the pedagogical issue of making the best use of class time to support student learning (Pierce & Fox, 2012; Talbert, 2017). Thus, many practitioners of flipped learning adopt the approach before fully exploring its pedagogical roots or theoretical underpinnings. Indeed, this is how the approach itself originated (Bergmann & Sams, 2012). None-the-less, despite it often being adopted into practice for pragmatic reasons, continuing to reduce the approach to simply a restructuring of learning activities fails to acknowledge the body of pedagogic research into flipped learning practice that has amassed since its emergence as a pedagogic approach.

This chapter presents an overview of this pedagogic research with a view to positioning the key aspects that have emerged that have relevance to this research inquiry. Firstly, it gives an overview of the origins and development of flipped learning as a pedagogic framework. It then considers flipped learning's adoption in higher education, retracing its roots in this tier of education. Moving on it considers what approaches have been used to measure the impact of flipped learning in higher education before offering a selection of theories pertinent to this particular research inquiry. Drawing on the work of Abeysekera & Dawson (2015) and Talbert (2017) it selects Cognitive Load Theory, Self-Determination Theory (Abeysekera & Dawson, 2015) and Self-Regulated Learning (Talbert, 2017) as the pedagogic theories most relevant to understanding the data produced in this research inquiry. Finally, the chapter reviews the research base on student responses to and experiences of flipped learning. In doing so it identifies a gap in the literature that this research inquiry addresses.

2.2 Origins and development of flipped learning

Flipped learning is widely credited as being developed in secondary education in America by Colorado high school teachers Jonathon Bergmann and Aaron Sams in 2007 (Pierce & Fox, 2012). Sams came up with the approach while contemplating the best way to support their students learning. Having recorded live lectures for students who missed class, he realised that he and his co-teacher Bergmann could pre-record all their lectures and free up class time to help students understand concepts they were struggling with (Bergmann & Sams, 2012). Thus, flipped learning was created as a practical solution to a pragmatic pedagogical issue.

After using flipped learning for several years, Bergmann and Sams decided to investigate how their model integrated with Bloom's taxonomy. Thus, they developed their initial conception of the flipped classroom into a 'flipped-mastery learning system' that allowed students to work independently

through the curriculum using the video library, worksheets and other ‘learning objects’ available (Bergmann & Sams, 2013, p.26). To create the ‘flipped-mastery learning system’ they reworked Bloom’s mastery learning and in doing so they recognised that in their approach ‘learning should be the constant and time the variable’ (Bergmann & Sams, 2013, p. 26). They realised that making the learning objects on offer optional resources, rather than required activities, and offering a project incorporating problem-based learning as an option to those who prefer this style of learning, allows for differentiation and student paced flexible learning. Moving away from full class instruction, allowing students to retake assessments until they were happy with their grades and also allowing students to demonstrate their understanding in the format of their choice allowed Bergmann and Sams to develop flipped learning into a highly flexible, self-paced learning system that allowed for differentiation for personalised learning (Bergmann & Sams, 2012; Bergmann & Sams, 2013; Sams & Bergmann, 2013).

Reviewing the concept as a pedagogical approach, Sams and Bergmann (2013) trace the flipped learning approach back to antiquity, as they note the centuries old expectation that students prepare for class by reading selected text. However, when refining the definition of flipped learning and exploring its pedagogic underpinnings, Talbert (2017) refutes this point noting the required difference in the use of space, time and activities in the flipped learning framework. Namely, that simply giving students texts to read is not enough, as they need support to learn how to critically engage with texts to maximise what they learn and to help them develop the skill of learning itself. It has been noted that flipped learning increased in popularity due to the introduction of digital technology and the educational opportunities that the ubiquity of digital media now affords. So much so that the idea of flipped learning being focused upon use of digital technology is now largely taken for granted in the literature in the field. Indeed, the Flipped Learning Global Initiative – founded by Bergmann - declares that the new generation of Flipped Learning 3.0 offers the missing framework to make the adoption and application of education technology more effective (*Flipped Learning Global Initiative*, n.d.).

Focusing on the ‘flip’ of flipped learning, and largely associated with secondary teaching the approach has also been referred to as the flipped classroom model or flipped teaching model (Unal & Unal, 2017). Likewise, it has also been previously known as the ‘inverted classroom’ (Lage et al., 2000) or ‘reversed instruction’ (Hao, 2016). However, Yarbrow et al. (2014) argue that such names marginalise the pedagogic focus of the approach hence the use of the preferred term *flipped learning*. Similarly, in 2014 the Flipped Learning Network (FLN) released a formal definition of flipped learning that reads:

Flipped Learning is a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed

into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter. (FLN, 2014)

Additionally, while reviewing the history of flipped learning, Talbert (2017, p.73) notes that flipped learning actually developed in a few simultaneous sites in higher education from 1996 to 2000 before being 'rediscovered' by Sams and Bergmann and popularised in K-12 education between 2006 to 2008.

Recounting the application of flipped learning in higher education, Talbert (2017) explicates the FLN definition by explaining the meanings of direct and active learning, and the concepts of individual and group space. Firstly, he notes that the term 'space' refers to 'the physical, emotional, intellectual and psychological contexts' (Talbert, 2017, p. 36) that students face when doing their work. He notes that the delineation and definitions of these spaces allows the concept of FL to go beyond traditional on campus learning. Thus, he goes onto explain that 'individual space' refers to times when the focus is on the '*individual student's efforts*' (p.37) even if there are more people present. Therefore, 'individual space' mostly refers to students working by themselves or in small unofficial groups outside class. As such, individual spaces include when students are being tutored, when they are in a study group or when they work with a peer. Whereas 'group space' refers to when students are working as part of an official group, e.g. when they are learning as part of the '*entire class*' (p.37) or official subset of that class be that in class or as part of an officially organised group activity. However, noting the learning dynamic in large group lectures Talbert makes the caveat that group space does not necessitate group work as individual space does not necessitate working alone. Concluding his explanation, he notes that flipped learning dictates that the contexts that are better for each type of learning are the opposite of those suggested in traditional models of learning in HE.

Talbert (2017, p.47) argues that flipped learning is more than just a teaching technique, instead defining it as 'an entire philosophy that encompasses course design, specific teaching practices, and professional engagement'. As such, he (2017, p.56) states that 'the essential components of time, space and activity make flipped learning what it is'. Furthermore, he explains what these specific concepts are and how they work within the flipped learning approach through a comparative critique of the traditional model design of learning and teaching, often referred to as simply 'traditional' teaching. Albeit that Talbert's characterisation of traditional teaching could be viewed as oversimplified, none-the-less he (2017, p.31-33) contends that traditional teaching:

1. Creates an inverse relationship between cognitive difficulty of student work and student access to support
2. Takes time away from social, guided exploration of deeper learning
3. Does not promote self- regulated learning behaviours

4. Creates undesirable intellectual dependencies of students on instructors

Talbert (2017, p. 35-36) asserts that Flipped Learning solves these 4 issues as;

1. The relationship between cognitive difficulty and access to help is now direct rather than inverse
2. Class time is opened up for the tutor to plan suitable (and responsive) activities as students get to 'soak in' the material and ask questions before being asked to apply it
3. Flipped learning promotes self-regulation of learning behaviours as it is built into the infrastructure of the course e.g. students can decide for themselves if their understanding is inadequate and can re-watch material and try something different to understand it
4. Tutor role shifts to coach, helper and consultant

Thus, in flipped learning the role of the tutor changes from the archetypal 'sage on the stage to the guide on the side' (King, 1993). However, beyond the 'guide', 'coach' or 'helper' role, Talbert (2017, p.236) suggests that when the tutor role shifts to 'consultant' students become 'clients. In these new roles learners and educators form a partnership to create the equally valued outcome of education (Cook-Sather et al., 2014; Oliver, 2015). Furthermore, they do so in within an environment reminiscent of a 'knowledge-building community' (Scardamalia & Bereiter, 2003) where groups work together to produce and continually improve ideas that are of value to the group.

Following his explication of the component parts of flipped learning, Talbert (2017, p.50) offers an updated version of the Flipped Learning Network definition of flipped learning given earlier:

Flipped Learning is a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space *in the form of a structured activity*, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter.

As such, he argues that the difference between what may and may not be counted as flipped learning is in the presence and construction of guidance to support learning. Therefore, for restructured learning to be recognised as flipped learning, guidance must be given 'in both the individual *and* group space' in the form of direct instruction that scaffolds learning. Furthermore, there must be 'an *intentional* approach to getting *all* students involved in dynamic, creative activities that support learning' (Talbert, 2017, p.59). For these reasons, in his comprehensive account of the origins of flipped learning, Talbert credits the originators of flipped learning as being the Harvard University

physicist Eric Mazur, Cedarville University Communications Professor J. Wesley Baker and Miami University economics professors Maureen Lage, Glenn Platt and Michael Treglia. In the mid to late 90s all these educators became frustrated by the limitations of the traditional model of teaching and restructured and refocused their pedagogy to create 'peer instruction' (Mazur, 1997), the latterly named 'classroom flip' (Wesley Baker in Talbert, 2017, p.65) and the 'inverted classroom' (Lage et al., 2000). As intentional and organized restructurings of course design to support learner focused pedagogy, all of these examples meet the criteria Talbert sets for pedagogy to be recognised as flipped learning and as such, form the origins of what is recognised as flipped learning today. Furthermore, this account of the history of flipped learning and Talbert's criteria for what counts as flipped learning is endorsed by Bergmann who wrote the foreword for Talbert's book.

Recognition of flipped learning as a pedagogic approach reflects Sams and Bergmann's (2013) description of flipped learning as being about a mindset of redirecting attention away from the tutor and putting attention on the learner, what they need to learn and the best method to support them learning it. Thus, they define flipped learning as student focused pedagogy that seeks to make best of use in-class time with students. They also note that in its burgeoning popularity flipped learning has become synonymous with, and caricatured as, the use of pre-class videos. However, they stress that video should only be used if it is suitable to deliver the desired learning objective. Thus, they note that a wide array of 'learning objects' (Bergmann & Sams, 2013, p. 26) can be used for pre-class preparation, which allows students to pace their own learning. Such learning objects can include: pre-readings, a short quiz, an online discussion, paragraph summaries, concept maps, annotated notes, case-based presentations and simulations (O'Flaherty & Phillips, 2015, p.87; Unal & Unal, 2017, p.146). However, recognising the ubiquity of digital technology whilst also wishing to afford the flipped learning a more substantive definition than 'merely a re-ordering of teaching and learning activities', Unal and Unal (2017, p.146) define flipped learning as a 'technology-supported pedagogy' where students are specifically introduced to class content before their face-to-face class, to facilitate the use of interactive learning activities in class. With these interactive learning activities being designed to allow for instant feedback that may incorporate formative and summative assessments (O'Flaherty & Phillips, 2015).

While the popularity and influence of flipped learning in K-12 education has led to the belief that flipped learning originated in secondary education, Talbert (2017) has demonstrated that it actually originated in higher education, albeit that it was not known as 'flipped learning' at the time. Given that such an approach was simultaneously used to solve course design and pedagogical issues experienced by geographically disparate higher education practitioners it is perhaps unsurprising that other practitioners facing the same issues have adopted flipped learning as the solution. Indeed, while

Bergmann and Sams use of flipped learning was enabled by the use of video on YouTube (Bergmann & Sams, 2012) the ubiquity of ever more sophisticated, user friendly, mobile and accessible technology has made this adoption ever easier. Thus, the adoption of flipped learning in higher education has grown over the past ten years (Li et al., 2021; O’Flaherty & Phillips, 2015; Talbert, 2017). However, as is the case in this research inquiry, it has largely been adopted by practitioners looking for teaching methods that promote engagement and learning (Li et al., 2021; Seery, 2015). This has led Li et al. (2021, p.23) to conclude that the increasing adoption of flipped learning in HE is due to ‘a ‘multi-paradigmatic’ [...] pragmatic but unprincipled approach’. However, far from being unprincipled it could be argued that practitioners’ pedagogic principals are part in the praxis they adopt (Biesta, 2013).

For example, at least in the UK, it is expected that HE practitioners will hold a Postgraduate Certificate in Higher Education (*jobs.ac.uk*, 2023). Therefore, practitioners are basing the choice to change their practice within wider knowledge of teaching in HE aiming to encourage ‘deep-level processing’ (Marton & Säljö, 1976, p. 4) or ‘deep learning’ within a ‘constructively aligned’ course (Biggs, 2003) aimed at encouraging student engagement and supporting student learning. Thus, publications relating to such situations are based on empirical data relating to accounts of adopting the method and subsequently discussions will rarely overtly position such praxis within specific pedagogic approaches as this is assumed practitioner knowledge.

Flipped learning comes under the broader umbrella of ‘blended learning’ which combines on-line and face-to-face learning (Garrison & Kanuka, 2004) with most scholars positioning blended learning approaches and flipped learning approaches as two points on the same continuum. Baepler, Walker and Driessen (2014) contend that both blended and flipped learning belong to a family of ‘active learning’ approaches that make more expedient use of faculty/student contact time. However, the ‘flipped’ approach is recognised as signalling a specific shift in ‘in-class focus’ from ‘content delivery to [...] content comprehension’ (Uskoković, 2018, no pagination). As such, in-class time is structured around students learning through ‘peer interaction and complex problem solving’ (Unal & Unal, 2017, p.146) as students apply the pre-presented content and concepts in active learning activities.

Flipped learning has been presented as a pedagogic approach situated within constructivist pedagogy drawing across Vygotsky and Friere, problem based learning and cognitive load theory (McLaughlin et al., 2013; Sankey & Hunt, 2014; Santos Green et al., 2017; Yarbro et al., 2014). However, it has been criticised for lacking a clear reference to educational or learning theories (Koh, 2019; Li et al., 2021; O’Flaherty & Phillips, 2015). Addressing this issue Koh (2019) suggests the four pedagogical dimensions of personalisation, higher-order thinking, self-direction, and collaboration can be used as theoretical perspectives to show how flipped classroom practices can support student-centred

learning. However, for Li et al. (2021) the underlying lack of clear and consistent reference to educational or learning theories lies in the fact while flipped learning is recognised as an active approach to learning there is scant explicit recognition or connection across active learning and flipped learning research. None-the-less, as flipped learning removes passive learning from the classroom to focus on delivering and supporting activities that deliver meaningful learning of educational objectives (see Bergmann & Sams, 2012), Li et al. (2021, p. 2) argue that the sizeable body of research relating to active learning 'provides indirect support for the utilization of flipped learning'. Therefore, as FL is largely utilised as a pragmatic solution to pedagogic issues while no direct association with specific educational theories may underpin this approach, none-the-less support for FL pedagogy may be drawn across constructivist pedagogy, blended learning and active learning amongst others.

Flipped learning has also been credited as being a pedagogic approach suitable for meeting the expectations and experiences of millennial students used to constant connectivity through multiple devices that are used to produce as well as simply receive information (Li et al., 2021). As a technology supported student centred pedagogy, flipped learning has been used across a diverse range of disciplines including STEM disciplines (i.e. science, technology, engineering, and mathematics) humanities, law and economics (O'Flaherty & Phillips, 2015), chemistry (Broman & Johnels, 2019) and medicine and health subjects (Låg & Sæle, 2019). The type and variety of 'learning objects' used for any specific class are at the discretion of each individual tutor and will be determined by the discipline being studied and the learning objectives for the overall course and specific teaching session. However, there is not necessarily a correlation between any particular discipline and a specific set of learning objects, as research on flipped learning conducted exclusively within engineering revealed different preferences for learning objects across different courses (Karabulut-Ilgu et al., 2018).

2.3 Measuring the impact of flipped learning

As the purpose of flipped learning is to better support, and therefore improve, learning it is unsurprising that since its adoption into higher education research has been produced that attempts to determine if flipped learning produces better outcomes than traditional learning. These outcomes have either been measured via improved student results or improved student experience, or a combination of both. However, as noted by Mok (2014), since the outset of research into flipped learning in higher education, research on whether it improves student attainment or experience of learning has been inconclusive. The results of the first two funded longitudinal studies drew different conclusions about the impact of flipped learning. In one four-year study, within engineering and mathematics, students did not show improved learning as a result of flipped learning and were found, on average, to be less enthusiastic and felt less prepared than in traditional classrooms (Atteberry, 2013; Yong et al., 2015). Whereas, in the other three-year study within pharmaceuticals, students

showed a statistically significant improvement on exam scores with students demonstrating a strong preference for flipped learning in the post-course survey (McLaughlin et al., 2013; Meyer, 2013). However, a meta-analysis by Hew et al. (2021) concluded that adopting a FL approach does show improvement in student learning.

Since research about flipped learning started appearing in peer reviewed journals research has covered explaining the reasons for and the process of flipping the classroom, evaluating the results of flipping the classroom compared to traditional classrooms, evaluating student's responses to learning in a flipped environment and seeking pedagogical approaches to align with flipped learning. Over the history of flipped learning research, as Talbert (2017) also observes, research focus has moved from concentrating on the why and how to flip the classroom and assessing whether this pedagogic approach works, to looking at how altering what type of learning objects are used and how they are used may better support learning in the flipped classroom e.g. (Mok, 2014). Thus, there is a perceptible shift in flipped learning research as focus has moved from measuring attitudes towards and outcomes in the flipped classroom in comparison to the traditional classroom e.g. Anderson et al. (2017), Castedo et al. (2019), Findlay-Thompson & Mombourquette (2014), Pierce & Fox, (2012) and Scott et al. (2016), to further improving learning support in flipped learning using gamification e.g. Huang & Hew (2018), Klemke et al. (2018), Ng & Lo (2022), Zamora-Polo et al., (2019) or mobile technologies/learning (Liu & Zhang, 2022).

This shift may have occurred as those in the field and those entering it, have become more confident that flipped learning delivers on its promises for increased student engagement, self-paced learning, active learning and self-regulation of learning behaviours (Talbert, 2017). None-the-less, as teaching and learning remains open to a myriad of variables, as would be expected, individual studies on what works or does not work in particular disciplines, with particular cohorts and in particular teaching environments, remain ever-present in the literature.

As noted by Talbert (2017), systematic or scoping reviews appear with regularity within the burgeoning field of literature on flipped learning. These reviews can be either general in scope (see Akçayır & Akçayır, 2018; Låg & Sæle, 2019) or within specific disciplines e.g. engineering (Karabulutlu et al., 2018) or medicine (Lin & Hwang, 2019). However, as Dziuban et al. (2018) point out, scoping or systematic reviews and meta analyses pre-suppose that there is only one type of flipped learning. Furthermore, they adhere to the idea that it is possible to establish 'what works' in education (Biesta, 2010). However, even early adopters Sams and Bergmann were careful to caution against the idea of *the* flipped classroom. Thus, Dziuban et al. (2018, p.5) argue that like its parent category 'blended learning', flipped learning can be seen to act as a 'boundary object', an idea or concept that can focus

and unite a broad range of scholarship but can see disagreements between specific conceptions and applications of the idea. Given disciplinary differences and the array of learning objects used, Dziuban et al. (2018) note that caution should be used when interpreting the results of studies that convey any equivalence between how 'the flip' is configured in each discipline or on each course, as there is a tendency to convey independent status to the 'flip' as the sole variable of importance. None-the-less, while it may not be the only variable, it certainly is a significant variable and as such a burgeoning research literature of evaluative studies exist.

Dziuban et al.'s (2018) observation reflects the wider debate within education relating to the 'what works' debate where randomised control trials are positioned as the 'gold standard' of research relating to impact measurements. However, as Biesta has argued, looking to find what works in education is doomed to failure as each educational situation is unique due to education being never just poesis, but poesis embedded in praxis (Biesta, 2007, 2010, 2013). Therefore, while Talbert (2017) is happy to conclude that flipped learning works e.g. it promotes positive outcomes for supporting student learning, it should be acknowledged that there will continue to be studies that belie such whole-hearted declarations of success. This is because learning and teaching is complex and multi-faceted and the measures used to judge its 'effectiveness' are subject to disciplinary preferences. Therefore, what seems to be at stake in flipped learning (and why there has been in a shift in the research towards what works better to facilitate a successful flip) is how flipped learning's pedagogic appeal to practitioners can be best practiced in each individual circumstance in which it is adopted. Thus, research is now about adaptations to the flip to enhance its effectiveness (e.g. Oudbier et al., 2022) and indeed, learning and teaching during the Covid-19 pandemic has produced research reflecting just such concerns (e.g. Divjak et al., 2022).

However, as Abeysekera and Dawson (2015) note, claims in support of flipped learning tend to be based on the fact that it is an alternative to the traditional transmissive lecture that pedagogic research has thoroughly interrogated and found wanting (Biggs & Tang, 2011). However, while Talbert (2017) makes a similar claim for flipped learning he does acknowledge that as a pedagogic approach, active lectures may offer effective learning. None-the-less, his point is that flipped learning done correctly offers more and better supported active learning. Therefore, following Abeysekera and Dawson (2015) he does not present flipped learning as a panacea but as a learning approach with a different set of potentials that may be attractive to tutors in specific contexts.

2.4 Framing student responses to flipped learning

Flipped learning requires students to take an unfamiliar approach to their learning. One that involves them doing a significant amount of independent out-of-class work. As Abeysekera and Dawson (2015)

note, for flipped learning to work, students must commit to doing pre-class preparation activities. Thus, the success of flipped learning is dependent on students not only undertaking these learning activities but being able and motivated to complete them. This, Abeysekera and Dawson (2015, p. 7) argue, is 'partially a problem of motivation that is self-determined' and reflects studies that cite students' lack of preparation as a challenge in the flipped learning approach (Akçayir and Akçayir, 2018; Kim et al., 2014). Although it should be noted that this issue is not unique to flipped learning (Ritchey & List, 2022; Theriault, 2022).

In a significant article in the field of flipped learning, Abeysekera and Dawson (2015) in their application of Deci & Ryan's (1985, 2008), Niemiec & Ryan's (2009) and Ryan & Deci's (2000a, 2000b) work, examine the potential of flipped learning through the lens of self-determination theory (SDT) and cognitive load theory (CLT). Their explanation of SDT is of particular relevance to this research inquiry. They explain that self-determination theory is based on motivation (both intrinsic and extrinsic) linked to autonomy, competence, security and relatedness which are in turn related to the integration of course values. They note that intrinsic motivation relates to actions students do as they find the actions inherently interesting, enjoyable or satisfying. Thus, in order for students to experience intrinsic motivation learning activities should be unusual, stimulating, or creative. Furthermore, to be intrinsically motivated students need to feel competent and autonomous, feelings which are most likely to develop in learning environments that create a sense of security (e.g. exploring self-directed learning in small group work with peers) and relatedness (e.g. feelings of belonging to and being an active participant in a learning community). Whereas at the opposite end of the motivation scale, extrinsic motivation relates to actions students do because they lead to separately distinguishable results (e.g. avoiding punishment or seeking rewards). Abeysekera and Dawson (2015) note that extrinsic motivation is usually associated with being compelled to do something, such as students avoiding the loss of marks or gaining marks by attending class. However, they explain that SDT identifies subtleties in extrinsically motivated behaviour by recognising the relative autonomy in some extrinsically motivated behaviours. For example, when a student makes a personal choice to do something as a means to a personal end, such as completing learning activities to get a better mark to secure a better degree to secure a job in their chosen profession. In this situation they are demonstrating more autonomy than if they simply compelled to complete the learning activities because they were told to do so by their tutor.

Abeysekera and Dawson (2015) go on to state that motivating students to self-regulate their learning behaviour without recourse to structured extrinsic motivations (e.g. rewards or punishment) is challenging. Therefore, they suggest that for flipped learning to work, grades may have to be attached to class attendance or pre-class learning activity completion. However, they also note that 'as an

alternative [to structured and graded extrinsic motivators], SDT advocates the creation of learning environments that encourage students to integrate values associated with a given course as their own' (p. 11). Furthermore, within SDT this integration forms a continuum, their explanation of which can be represented in diagram form as in Figure 5. Thus, as Figure 5 presents, integrated regulation is still extrinsically motivated but is the most autonomous type of extrinsic motivation and therefore the most desirable.

Integration of course values continuum in Self Determination Theory

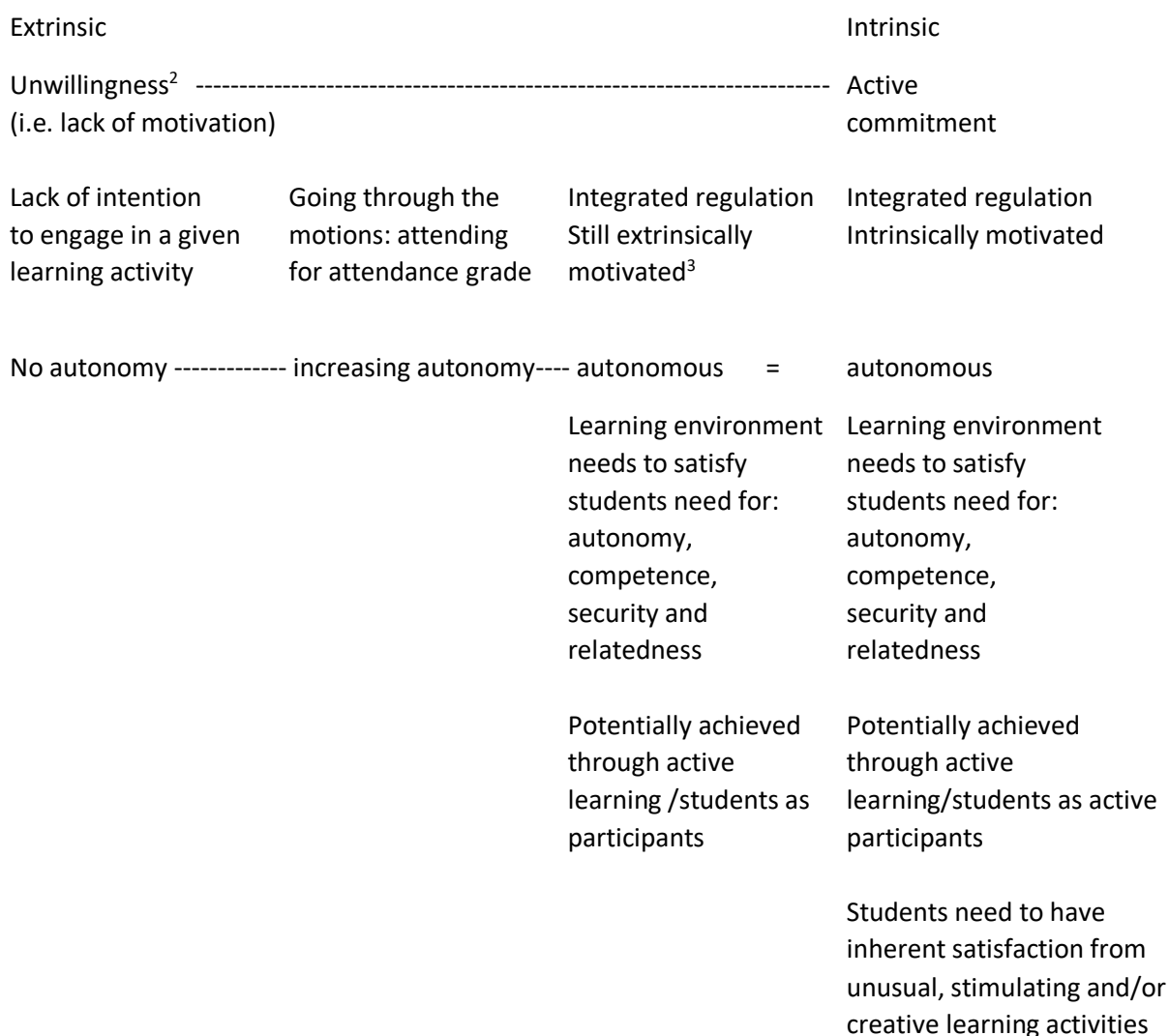


Figure 5: Integration of course values continuum in Self Determination Theory (Adapted from Abeysekera & Dawson (2015) with permission from Taylor & Francis)

² With reference to Talbert (2017), I shall explore below that unwillingness may be a case of students being unable, ill equipped or ill prepared to engage with flipped learning.

³ Remains extrinsic as actions are done for the 'instrumental value associated with an outcome that is separate to the behaviour itself' e.g. participates in class discussion as satisfies the need to be heard, with the enjoyment from the discussion being only a secondary motivator (Abeysekera & Dawson, p.12).

In their model of SDT, Abeysekera and Dawson's use of 'learning community' used in their explanation of 'relatedness' is taken from Baron and Corbin's (2012, p.763) definition of 'engagement'. However, Baron and Corbin's definition relates to students who access the university campus and focuses on the aspects of community building that involves engaging with university facilities. This is an area of interest for FE colleges delivering HE as they seek to build students' relationships with both their own campus and the campuses of the HEI's for whom they offer their degree students access. Nonetheless, within this research inquiry, the idea of learning community being used is more akin to Abeysekera and Dawson's (2014, p.5) description of group work, which in turn is based on Sweet and Michaelson's (2012) definition, where groups of learners become 'small communities of peer learners'. Moreover, the concept of learning community adopted in this research inquiry's application of SDT theory is more akin to Wenger's idea of communities of practice. As Wenger (n.d.) asserts, communities of practice are comprised of 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' and are part of a 'sustained learning partnership'. These aspects of communities of practice are reflected when students regularly interact with one another outside of the classroom via technology e.g. WhatsApp (Karapanos et al., 2015), text, phoning or Zoom or in physical face-to-face study groups.

In terms of their second theoretical framework Cognitive Load Theory (CLT), Abeysekera and Dawson note that this theory is based on Miller's (1956) seminal work that revealed that 'working memory' is limited to retaining between 5 – 9 pieces of information at once and varies across people. CLT developed this idea to assert that our working memory may therefore become overloaded and that this situation would impede learning (Clark, et al., 2005 in Abeysekera & Dawson, 2015). There are three different types of 'load' that act on working memory as we learn: intrinsic, extraneous and germane. The intrinsic load is the learning load of a task is irreducible. Intrinsic load is comprised of the 'unchangeable core of a problem or concept' (Abeysekera & Dawson, 2015, p.15) and the effort required to perform or learn it that is 'inherent in the task itself' (Talbert, 2017, p.81). Extraneous load is load that makes the task more difficult to perform or more difficult to learn, such as in the choice of the presentation of the task. Whereas germane load is load that is deliberately added to a task to aid learning by helping the learner to form schemas. Thus, intrinsic load is unalterable, extraneous load is unnecessary and germane load is desirable.

As Talbert (2017) observes, the ramifications of CLT are evident as educators wish to support rather than impede learning and would want to aim for adding germane load to help students develop deep and complex understandings of their subjects. However, while Abeysekera and Dawson (2015, p.16)

note that 'empirical research has identified certain 'effects' that increase or decrease germane and extraneous load' they decline to give examples of such research. None-the-less, they (2015, p. 15) propose that flipped learning may 'provide additional opportunities to manage cognitive load, thus improving learning'. They further note that some of these additional opportunities are inherent in flipped learning while others will have to be the result of deliberate choices made by tutors when they are designing their courses and the learning activities and experiences therein.

Based on their considerations of SDT and CLT Abeysekera and Dawson (2015, pp.10-18) offer six propositions about flipped learning - and a framework for further investigation of flipped learning - based on flipped learning's potential to increase intrinsic and extrinsic motivation, and the reduction and better self-management of cognitive load.

Their six propositions are:

- 1: Learning environments created by the flipped classroom approach are likely to satisfy student needs for competence, autonomy, and relatedness and thus, entice greater levels of intrinsic motivation.
- 2: Learning environments created by the flipped classroom approach are likely to satisfy students' need for autonomy and thus, entice greater [more desirable] levels of extrinsic motivation [i.e. integrated regulation]
- 3: Learning environments created by the flipped classroom approach are likely to satisfy students' need for competence and thus, entice greater [more desirable] levels of extrinsic motivation [i.e. integrated regulation]
- 4: Learning environments created by the flipped classroom approach are likely to satisfy students' need for relatedness and thus, entice greater [more desirable] levels of extrinsic motivation [i.e. integrated regulation]
- 5: Student self-pacing of pre-recorded lectures may reduce cognitive load and help learning in a flipped classroom environment.
- 6: Flipped classroom approaches may provide more opportunities to tailor instruction to the expertise of students, enabling more appropriate management of cognitive load.

Abeysekera and Dawson (2015, p.9) offer Figure 6 as a summary to their six propositions of flipped learning in relation to self-determination theory and cognitive load theory.

The authors propose this model as a series of research questions to investigate if flipped learning can increase motivation and better manage cognitive load. This research inquiry has not been designed

to directly respond to that call as to do so would require measuring cognitive load and motivation. None-the-less, I recognise the likelihood of matters relating to this model to resonate within the responses given by participants asked to discuss their experience of flipped learning. Therefore, it is for this reason that Abeysekera and Dawson's model and their account of SDT and CLT are discussed here.

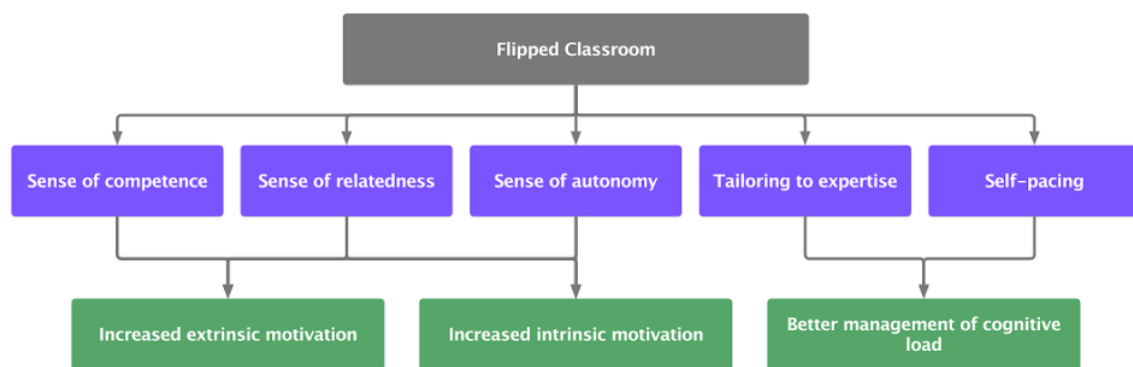


Figure 6. Theoretical model for the flipped classroom (reproduced from Abeysekera & Dawson (2015, p.19) with permission from Taylor & Francis)

In addition to SDT and CLT, Talbert (2017) offers self-regulated learning (SRL) as a third framework through which to understand flipped learning. As described by Zimmerman (2002, p.65):

Self-regulation is not mental ability or an academic performance skill; rather it is a self-directive process by which learners transform their mental abilities into academic skills

Within the self-regulation framework, learning is viewed as proactive, something that students do for themselves as opposed to something that is reactionary event caused by teaching. Self-regulation is also goal orientated, with students' thoughts, feelings and actions focused on their desired goals. SRL involves more than just knowledge acquisition, it requires students to take the initiative and have some control over different aspects of learning. As such, Talbert (2017, p.87) asserts that 'Flipped learning environments encourage and support the development of self-regulated learning skills and behaviours perhaps more thoroughly than any other kind of instructional model'. However, following Nilson (2013), Talbert (2017, p.83-84) notes that SRL requires students to exercise strategic knowledge, knowledge about cognitive tasks, and self-knowledge. He also presents Pintrich's (2004) rubric table for self-regulation that shows the four areas and four phases of SRL noting that 'performance on a learning task can be characterized by the 16 combinations of area and phase that this rubric creates' (p.85). As such, Talbert's explanation of SRL demonstrates that practising SRL is an

accomplished task. Therefore, it is reasonable to extrapolate that not all students will have the tools with which to engage in and practice this self-directive process.

Talbert (2017, p.87) notes that flipped learning allows instructors to think about self-regulation and design it into their courses ‘in ways that other instructional methods do not’. This is because the primacy of independent learning activities in flipped learning which require students to engage in self-regulation as they are given – and to be successful must take on - the responsibility of learning independently to prepare for classroom activities. It is to this end that the intentionality required for re-ordered learning to be deemed flipped learning comes into play. For to support the growth of students’ self-regulation, tutors need to bring an intentional focus on SRL to bear when designing their learning. None-the-less, given that many practitioners utilise flipped learning without conceptual knowledge of SRL, Talbert also acknowledges that while tutors should not expect self-regulation to occur naturally in flipped learning environments, given that SRL is an integral part of flipped learning, ‘there is some evidence that it might’ (p.88). However, while augmenting Fink’s (2003) 12 step design for significant learning to make it more applicable for constructing flipped learning courses, Talbert (2017) makes additions to the model that relate to the idea of ‘unwillingness i.e. lack of motivation’. Fink’s (2003, p.66-67) original model, reproduced in the 2013 text Talbert refers to, is as set out in Table 1.

Fink’s 12 step model for designing an integrated course		
Initial phase: Build strong primary components	1	Identifying important situational factors
	2	Identifying important learning goals
	3	Formulating appropriate feedback and assessment procedures
	4	Selecting effective teaching and learning activities
	5	Making sure that the primary components (steps 1-4) are integrated
Intermediate phase: Assemble the components into a coherent whole	6	Creating a thematic structure for the course
	7	Selecting or creating a teaching strategy
	8	Integrating the course structure and instructional strategy to create an overall scheme of learning activities
Final phase: Finish important remaining tasks	9	Developing the grading system
	10	Debugging possible problems
	11	Writing the course syllabus
	12	

	1	Planning an evaluation of the course teaching
	2	

Table 1. Summarised version of Fink's (2003) 12 step model for designing an integrated course (reproduced from Fink (2003, p.67) with permission from John Wiley & Sons, Inc.)

In Step 1: Situational Factors, Talbert (2017, p.138-139) notes there is a need to consider situational factors in flipped learning that may not be as pertinent in a traditional course model. Included in these considerations are questions that cover learners' expected norms of learning and things that might make independent learning in the individual space harder than it should be 'e.g. weakness in prerequisite knowledge or a lack of experience with self-regulation' (p.139). Likewise, in Step 2: Learning Goals, he notes that flipped learning's focus on developing self-regulated learning skills requires a particular emphasis on three of the six types of learning goals in Fink's (2003) Taxonomy of significant learning Figure 7. Talbert suggests that a focus on 'learning how to learn', 'caring' and 'human dimension' makes use of the potential flipped learning provides. He goes onto note that it would be sensible to include 'flipped learning-specific' (p.139) learning goals relating to learning how to learn and self-regulation. An example of a relevant 'learning how to learn' goal would be 'being able to extract relevant information from a video and demonstrating the ability to learn independently from it' (p. 139).

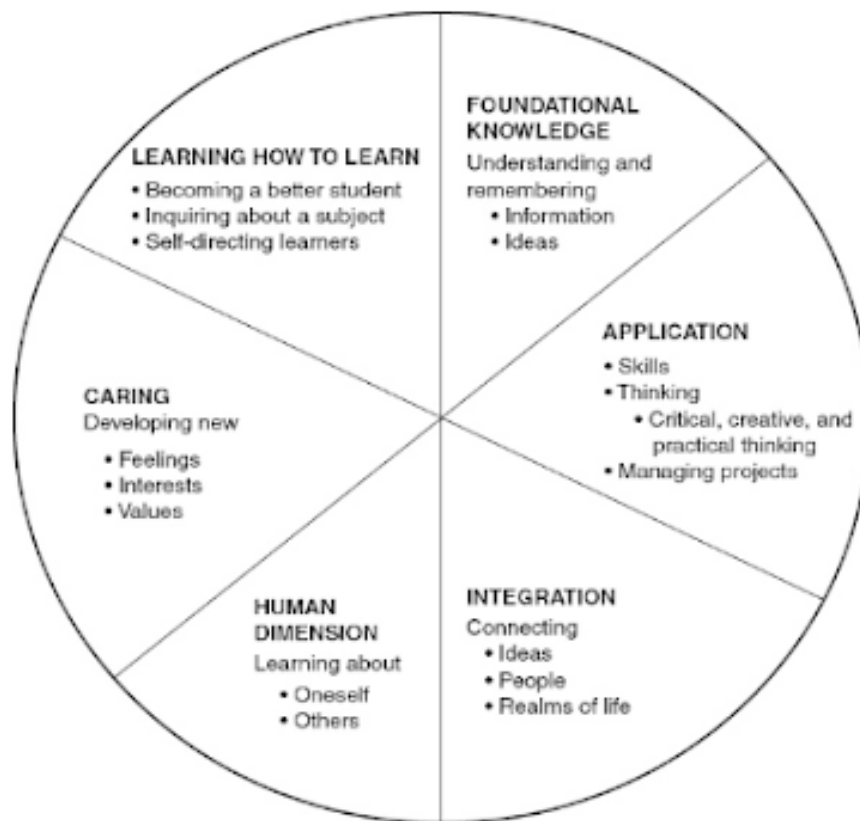


Figure 7: Fink's Taxonomy of significant learning (reproduced from Fink (2003, p.30) with permission from John Wiley & Sons, Inc.)

However, as thorough as Talbert's explanation and application of Fink's model to flipped learning is, it remains the case that most experienced educators will flip their courses without recourse to either Fink's (2003) 12 step model for significant learning but will instead undertake their own version of Talbert's (2017, p.151) seven step process for flipped learning Table 2.

Seven-step process for building a single instructional unit in a flipped learning environment	
1	Come up with a brief but comprehensive list of learning objectives for your lesson
2	Remix the learning objectives so that they appear in order of cognitive complexity
3	Create a rough design of the group space activity that you intend to do with your students
4	Go back to the learning objectives list and split it into basic and advanced objectives
5	Finish the design of the group space activity
6	Design and construct the individual space activity
7	Design and construct any post-group space activities you intended students to do

Table 2: Seven-step process for building a single instructional unit in a flipped learning environment (Reproduced from Talbert 2017, p. 151-152, with permission from with permission from Taylor & Francis Group) NB. The process is iterative - not linear.

Useful as Abeysekera and Dawson's (2015) propositions about SDT and CLT and their theoretical model of the flipped classroom are, and Talbert's addition of SRL to this schema, recent studies recognise the issue that students may simply not be ready to engage in this different approach to learning (Tomas et al., 2019; Velde et al., 2021). Indeed, further impediment to the transition from the passive, transmissive lecture to flipped learning is that the cultural idea of learning at university is strongly linked to the idea of the 'university lecture' (Gysbers et al., 2011; Hall, 2021). Therefore, while theories of motivation, cognitive load and self-regulated learning remain important for flipped learning it should be acknowledged that students who lack awareness or understanding of, or are uncomfortable with this alternative approach to learning may simply reject the approach as inappropriate. None-the-less, this research is focused on student experiences of flipped learning. Therefore, here I have positioned self-determination theory, cognitive load theory and self-regulated learning as providing three useful overarching pedagogic frameworks to help understand students' conceptions of flipped learning.

2.5 Analysing student responses to flipped learning

Flipped learning is a student focused pedagogy which repurposes learning space, time and activities to better support student learning. Therefore, of key concern to research in the field is the experiences of students who encounter this way of learning. This is particularly important as the pedagogic restructuring that flipped learning requires also requires students to have a different understanding of how learning happens and to take an active role in their learning. However, research in the field continues to reflect the cultural idea of didactic lectures being synonymous with what learning at university is (Gysbers et al., 2011) and thus the difficulty practitioners may face when trying to ensure students become cognisant and comfortable with the flipped learning approach. This may be particularly so as students perceive that in flipped learning their workload increases while their tutors' workload decreases (Masland & Gizdarska, 2018).

As the strand of research exploring students' responses to flipped learning has progressed, there has been a notable shift from research that seeks to establish students' general responses to flipped learning (in whatever way it has been structured) (Pierce & Fox, 2012) to research that seeks to identify and investigate specific difficulties or obstacles students may encounter when orientating to this method of learning (Hao, 2016). The latter more recently developed area of research seeks to establish how to better support students to adapt to flipped learning and offers recommendations for adapting flipped learning pedagogy to give as many students as possible the chance to succeed using this approach to learning. For example, several studies recommend providing extra support for

students at the beginning of courses to assist them to understand and respond positively to the challenge of this learning approach (Fisher et al., 2017, Hao, 2016). Thus, a body of research in the field has developed offering recommendations for acclimatising students to flipped learning to overcome barriers to students' accepting the approach (Hoshang et al., 2021).

While FL has experienced burgeoning popularity, it has long been understood that FL is not a panacea and therefore does not always guarantee positive learning outcomes (Chen et al., 2017). However, if there are sound pedagogic reasons for tutors to use flipped learning then they will continue to deliver their courses in this pedagogic style. In doing so they may take advantage of learning from all the advice given on the pros and cons of the approach and the often unacknowledged variety that the framework of FL encompasses (de Araujo et al., 2017; Dziuban et al., 2018; Talbert, 2017). Practitioners converting their courses to flipped learning bring their pedagogic knowledge and experience to bear to make decisions about how best to organise and structure flipped learning e.g. what learning objects to use to introduce students to key concepts and what instructional methods and activities to use in the group space. Therefore, tutors may furnish flipped learning courses with activities that best suit the aims of their disciplines and the particular learning outcomes of the course. Likewise, tutors may adjust these learning objects and activities when reflecting on their courses and their success in supporting students' learning.

Throughout the field findings on student experiences of flipped learning echo one another in the repeated calls to recognise the complexity of FL pedagogy in careful planning and considerate and considerable support for students engaging in flipped learning. Indeed, this consideration and the variety of pedagogic options available to create flipped learning is also reflected in the increasingly specific aspects of practice and choice of learning activities that are evaluated within flipped learning research. As noted earlier, Dziuban et al. (2018) position flipped learning a 'boundary object', an idea or concept that can focus and unite a broad range of scholarship but can see disagreements between specific conceptions and applications of the idea. Due to this, it common for researchers to give their preferred definition of FL and to detail the context and construction of the specific instance of FL that their research investigates.

In seeking students' experiences of, responses to and perceptions of FL a range of qualitative approaches have been adopted such as open-ended questionnaires, individual and group interviews and focus groups and as would be expected there has been some research using phenomenological analysis to interpret such data. Although there are less phenomenological analyses of students' experiences of flipped learning than perhaps would be expected (Al-Hammouri et al., 2020; Aslan, 2020; Çil, 2021; Erdogan & Akbaba, 2017; Gonzales, 2019; Green & Schlairet, 2017; Shen, 2018). Also,

using phenomenology to derive perceptions of a phenomena is just one amongst many interpretative choices available to understand educational practice. Another such choice, popular for researchers seeking to improve educational practice, is using phenomenography to derive conceptions of phenomena. While there is a plethora of research demonstrating that students can tell the difference between traditional and flipped learning and documenting how they respond to learning in this way, as yet, there is no research known to this researcher on how students conceive and conceptualise their experience of flipped learning. Notably, there appears to be no phenomenographical accounts of students experiences of flipped learning. Such research would help us to further understand why it is that some students struggle and find it uncomfortable to learn in this way. Beyond characterising such students as 'flip resisters' (McNally et al., 2017, p.281) it may afford us ways to comprehend and further support students in this position. Albeit, that there will always be students who express a dislike for learning in this manner. Furthermore, understanding how students conceive and conceptualise flipped learning would allow us to further understand how students interpret this pedagogical approach.

The difference between phenomenology and phenomenography is succinctly described by Larsson & Holmström (2007) in their study of anaesthesiologists understandings of their profession. With reference to Giorgi (1999) and Marton (1981) respectively, they (2007, p.55) assert that phenomenology seeks to detail the 'structure and meaning of a phenomenon', whereas phenomenography seeks to 'describe the different ways a group of people understand a phenomenon'. Therefore, while a phenomenological analysis of students' experience of learning in a flipped classroom is illuminating, a phenomenographic analysis is better positioned to help educators understand the range of different ways that students from within one cohort conceptualise flipped learning and their experience of learning in this way. Being able to establish this would give educators an insight into the range of conceptions of flipped learning used by students. Having this insight would allow educators to establish if students were able to understand the purpose and realise the promise of using flipped learning and this in turn could be reflected upon with regard to SDT, CLT and SRL. It would also furnish educators with deeper understandings of why some students are unable or unwilling to take advantage of the support to their learning available within the flipped learning approach. As such, these understandings could be used to base interventions and recommendations to better support student learning within this pedagogical framework.

2.7 Conclusion

This chapter reviewed the origins of flipped learning to establish that contrary to popular belief, it is a pedagogic framework that originated in higher education. Furthermore, drawing on the work of Abeysekera and Dawson (2015) and Talbert (2017), it positioned Cognitive Load Theory, Self

Determination Theory (Abeysekera & Dawson, 2015) and Self-Regulated Learning (Talbert, 2017) as the pedagogic theories pertinent to this analysis of flipped learning. Finally, it presented the prevalent research approaches and methods used by researchers in the field of flipped learning research noting that to date, as far is known by this researcher, no-one has explored students' conceptions of flipped learning using a phenomenographic approach.

3. METHODOLOGY

3.1 Introduction

In this chapter my positionality is acknowledged and the motivation for the research is outlined as part of the context for this inquiry. The ontological and epistemological stance of this research inquiry are defined, the journey to construct the research questions is recounted and the research design constructed to answer these questions is presented. Through the presentation of the research design, the research methods and modes of analysis chosen are delineated and justified. Details of the study participants and their context are described and consideration is given to the ethical dimensions of the inquiry regarding practitioner research and reflexivity.

3.2 Positionality

Positionality relates to the ethics of research (Cohen et al., 2017). It refers to the recognition that research is an embodied practice (Wellington et al., 2005), that researchers hold pre-existing values and beliefs and that researchers exist in predominantly asymmetrical power relationships with their research participants (Cohen, et al., 2017, p.306). Researchers are required to consider their positionality as these values, beliefs and relationships will both shape and influence the entirety of any research enquiry. A researcher's positionality is comprised of their world view, the position they assume in relation to a research task and the social and political context of their work and which they give to their work. Positionality is based on assumptions about ontology, epistemology, human nature and agency (Holmes, 2020) which are influenced by all aspects of a person's identity, personal history and their cultural, political and social context. Therefore, to add to the integrity and rigour of their work, researchers employ reflexivity and a reflective stance to foreground and acknowledge the underlying assumptions of their position that exert influences on their work (Finlay, 2002).

Reflexivity is reflection employed in the specific purpose of unmasking the workings and dynamics of power (Karnieli-Miller et al., 2009). While a positionality statement in a thesis typically indicates a reflective stance, it is acknowledged that positionality is fluid and context dependent (Holmes, 2020) and therefore changeable throughout and across the course of a research inquiry. Subsequently, a commitment to reflexive practice necessitates not simply 'being reflexive' but 'doing reflexivity', namely 'building sensitivity into research design and paying attention to practice, power and process' (Skeggs, 2002, p.364). However, although I have strived to 'do reflexivity' in this research inquiry, it is also noted that reflexivity is inevitably incomplete as there are epistemological limits to what can be known about the self (Holmes, 2020) and reflexivity is unavoidably 'partial, fragmented and dynamic' (Fox & Allan, 2014, p. 101). Furthermore, as a practitioner-researcher conducting close-to-practice research, it would be highly unlikely that I would be able to uncover and take account of all the power dynamics present in my work. Indeed, the point of reflexive practice for any researcher is not to

eliminate the presence and dynamics of power in research but to recognise and account for the power, beliefs and values at play in the creating, conducting and interpreting their research. Thus, reflexivity works as a means through which to 'enhance the trustworthiness, transparency and accountability' of their research (Finlay, 2002, p.211). It is to this end that I offer the following reflection on my role, the motivation for the research and the participants in the study outlined in chapter one. In this reflection I highlight key aspects of my and their subjectivity and situatedness that have bearing upon and influence this research inquiry.

The ethical implications of the power dynamics at play in relation to the context of this research inquiry and the research process need to be acknowledged and mitigated against to reduce potential researcher bias. Foremost, these implications relate to my being a practitioner-researcher investigating students' experiences of a pedagogic change in which I am heavily invested. Likewise, they relate to all participants either being students that I teach, will teach or students for whom I am course leader. However, in designing and conducting my research and analysing the data I have been cognisant of power dynamics and potential bias throughout and have actively worked to interrogate the intentions and ramifications of each of the decisions I have made during the research process. For example, during the taught phase of the EdD programme it took 2 years of consideration and interrogation of the asymmetrical power dynamics in practitioner research and the completion of my pilot study before I felt assured that it was possible to conduct ethical research with students who I teach. My supervisory team have also helped me to see where, after my own efforts, potentially detrimental bias has remained. For example, during a pilot interview with one of my supervisors playing the role of participant, she highlighted assumptions I had made with regard to the answers I expected the participants to give to interview questions. In doing so they have helped to further develop my reflexive awareness. Therefore, while it is acknowledged that research will inevitably retain some aspect of researcher subjectivity and influence on the research process (Cohen et al., 2017; Holmes, 2020), I have adopted a reflexive stance through this inquiry to minimise the impact of potential researcher bias. Thus, while other research approaches to this inquiry would be plausible and equally valid - as no one paradigm has privileged access to reality or truth (Guba & Lincoln, 1994) - it is acknowledged that the choices made in this research inquiry are inevitably influenced by my personally held philosophical beliefs as they relate to the nature of reality, the construction of knowledge and the research design created to investigate 'experience,' the focus of this particular inquiry.

3.3 Ontological and epistemological perspectives

To decide which ontological and epistemological approach should be taken in this research inquiry I followed Guba and Lincoln's (1994, p.108) three question structure for establishing ontological and

epistemological stances, and subsequent methodological choices, as they relate to the four competing paradigms in qualitative research that they identify: positivism, post-positivism, critical theory et al. and constructivism. While other schemas exist in the research literature, this schema was chosen for its utility and clarity. The questions they posit – that may be answered in any order and whose answers constrain one another – attend to the nature of reality, how knowledge of reality may be ascertained, and how an inquirer may design research to find out what they believe can be known (Guba & Lincoln, 1994). The answers to these questions enable a researcher to position themselves within the four paradigmatic choices in the schema presented; positivism, post-positivism, critical theory et al. and constructivism (Guba & Lincoln, 1994, p.109).

For Guba and Lincoln (1994, p. 105), a paradigm is a ‘basic belief system or worldview’ that directs a researcher. Thus, paradigms operate as theoretical frameworks for understanding and investigating the world and are predicated on the nature of reality and what can be known about that reality. As basic belief systems these frameworks may remain implicit as they are fundamental views of the world that need only be surfaced when necessary; such as when a person undertakes research and must contextualise and justify their research within the range of ontological, epistemological and methodological positions available to researchers. Outlining this surfacing process, Cohen, Manion and Morrison (2017, p. 5) start with a person’s conception of reality positing the order of considering how one’s assumptions flow from ontological to epistemological assumptions leading to methodological deliberations that in turn influence choices of methods used to generate or select the data to be analysed. Therefore, in elucidating the methodological approach I adopt in this research inquiry, I use Cohen, Manion and Morrison’s (2017) questions to explicate the constructivist approach subscribed to in this research inquiry. Thus, a discussion of my methodological approach follows an overview of the ontological and epistemological positions I adopt in this research inquiry.

3.3.1 Ontological approach

Ontology is the science or study of being, and within the interpretivist approach to social science ontology is an approach that posits that human cognition plays a part in determining reality and that the existence of an object is in part determined by the person interacting with the object and interpreting its reality (Cohen, Manion & Morrison, 2017). Within constructivism, Guba and Lincoln (1994) note that the ontological approach is relativist as constructivist ontology is comprised of localised and multiple constructs of reality that are experienced. Notably, although reality in this conception is individualised it may be shared across individuals in and between groups and cultures (Guba & Lincoln, 1994). In this ontological stance, delineations of reality may not be said to be ‘true’ in any absolute sense. Any claim to knowledge remains tied to the circumstances and particularities of its production. Therefore, the understanding of flipped learning that will be produced in this

research inquiry remains tied to its production by the particular group of female mature students studying HE in FE in the outreach provision of a North West of England university. The key to quality (rigor) in this approach is to produce informed and sophisticated accounts of the constructions held by participants at the time of their investigation and transparency in how these accounts were obtained. Finally, as this approach is intra and inter relational as well as temporally specific, it is accepted that the constructions and realities produced are subject to change i.e. participants may provide different conceptions of a phenomenon if interviewed again.

3.3.2 Epistemological approach

Epistemology is the theory of knowledge, and within the constructivist approach adopted in this research inquiry the epistemological stance taken is 'transactional and subjective' (Guba & Lincoln, 1994, p.109). This stance posits that knowledge is created through the particularity of any given research inquiry as findings (knowledge) are created specifically through interaction of the researcher and object of study. Thus, the traditional distinction between ontological stances and epistemological approaches are collapsed as they become linked through the research inquiry. Furthermore, in investigating lived experience this research inquiry takes the constructivist position that each individual will have a particular perspective on that experience whilst also acknowledging that individuals may share commonalities across that experience.

3.3.3 Methodological approach

The methodology for constructivism is 'hermeneutical/dialectical' (Guba & Lincoln, 1994, p.109) as the individual and ephemeral nature of constructions mean that constructions are only created in the act of interpretation taking place collaboratively between the researcher and participants during the research process. Therefore, in a constructivist methodology it is accepted that the conceptions being sought through research are only constructed through the process of research.

In the constructivist approach taken in this research inquiry both ontology and epistemology are subjectivist, rather than objectivist (Cohen, Manion & Morrison, 2017). In this way, constructivism aligns with my values as human agency is posited as important in the ontological and epistemological realm. In the ontological realm, agency is present as reality is determined through human cognition while in the epistemological realm knowledge is understood as socially and historically constructed and created through the subjective process of human beings accessing the external world from their specific individual subjectivities and positioning.

3.4 Phenomenography

Originating in research in educational psychology, phenomenography was initially developed to explore how students learn. It was developed as an empirical research approach by educational

psychologists working in Göteborg University in the 1970s and was named as 'phenomenography' in 1981 (Marton, 1981). It is a research approach designed to investigate different understandings of reality (Marton, 1986). What phenomenography seeks to describe is not an objective reality, but a consensus of conceptions of experience that describe and give meaning to reality (Marton, 1981). Thus, the purpose of phenomenography is 'the finding and systematizing of forms of thought in terms of which people interpret significant aspects of reality' (Marton, 1981, p.180). That this discovery and categorising are possible is predicated on the existence of a shared ideology across Western cultures (Marton, 1981).

From an ontological perspective, phenomenography's focus on experience, individualised and shared, deems the interpretivist constructivist approach to be compatible with this approach. Indeed, phenomenography is specifically aimed at the explorations of experience, being a temporally specific transaction between subject and object processed through individual cognition (Marton, 1981). The world view of phenomenography is relational as the world is not constructed by nor imposed upon the individual, 'it is *constituted* as an internal relation between them' (Marton and Booth, 1997, p.13, italics in the original). Thus, phenomenography mirrors the interpretivist approach that positions human cognition as imperative to interpreting an object and its reality.

From an epistemological perspective, the phenomenographic approach adds another element of interpretive complexity to the constructivist collapsing of ontological stances and epistemological approaches as linked through the research inquiry. This is because phenomenography also takes into account the individual and group aspects of experience and their temporal, cultural, cognitive and experiential variability as it relates to the object of study. Namely, the uniqueness of educational events and their culturally significant resonance and meaning for tutors and students alike (Marton, 1981). Thus, the understanding of flipped learning produced by this research inquiry is understood to be unique because of the particularities of its production.

Indeed, while developed from an empirical position rather than a philosophical tradition (Svensson, 1997), phenomenography was developed as a research approach to specifically inquire into the constructivist conception of education that stresses human agency. In doing so it sought to re-orientate the legacy of Piagetian description from being stages of child development to being ways to describe how children think (Marton, 1981). Therefore, phenomenography addresses the qualitative aspect of education as a lived experience (Biesta, 2007) and posits that knowledge is relational 'created through thinking about external reality' (Svensson, 1997, p. 165). Thus, phenomenography developed as a research approach through which to establish (create and gain knowledge about) the commonalities of experience across individuals participating in educational contexts and to draw out

the key variation across those commonalities (Åkerlind, 2018; Ashwin et al. 2014; Marton, 1981; Mimirinis et al., 2022).

Despite not originating through a philosophical tradition, never-the-less it is recognised that phenomenography belongs to the wider paradigm of interpretivism and adopts a constructivist approach in its investigation into human conceptions of reality (Svensson, 1997). These conceptions are understood as constructed through a 'non-dualistic' (Marton & Booth, 1997, p.122) ontology, and relational epistemology (Svensson, 1997). Therefore, as with constructivism (Guba & Lincoln, 1997), the ontological and epistemological perspectives operationalised in phenomenography are functionally dependent upon and influenced by one another, resulting in the object of study having influence upon the subject of study and vice versa (Marton, 1981). Thus, phenomenography follows the key principles of hermeneutics in sociology and qualitative research and the part/whole of understanding of the hermeneutic circle (Hasselgren & Beach, 1997; Kvale, 2007a) and the interpretive hermeneutic cycle (Dortins, 2002).

While phenomenography does not emerge from one of the traditional philosophical approaches it is noted that it bears resemblance to phenomenology (Marton, 1981) in its hermeneutical concerns for the subjective experience of individuals and groups. Likewise, it shares with phenomenology the characteristic features of 'the relational, experiential, contextual, and qualitative' (Marton, 1986, p.40). Indeed, Marton (1986, p.40) posits that the relational perspective in phenomenography is a 'special case of the principle of intentionality' in phenomenology where it is recognised that our psychology requires consciousness but always 'refers to something beyond consciousness itself'.

As noted, in the 'hermeneutical/dialectical' (Guba & Lincoln, 1994, p.109) methodology of constructivism it is in the act of collaborative interpretation that takes place between the researcher and participants during the research process where interpretations of reality as perceived, become constructions of reality as conceived. The aim of a constructivist approach is to refine a consensus construction that is more erudite and nuanced than previous constructions and their explanations. This methodological positioning explains why interviews - as sites of the investigation and exchange that give rise to surfacing of constructions - are often the data production method of choice for qualitative research and predominate in phenomenography (Marton, 1986). Within phenomenography, this relational process is represented in Figure 8.

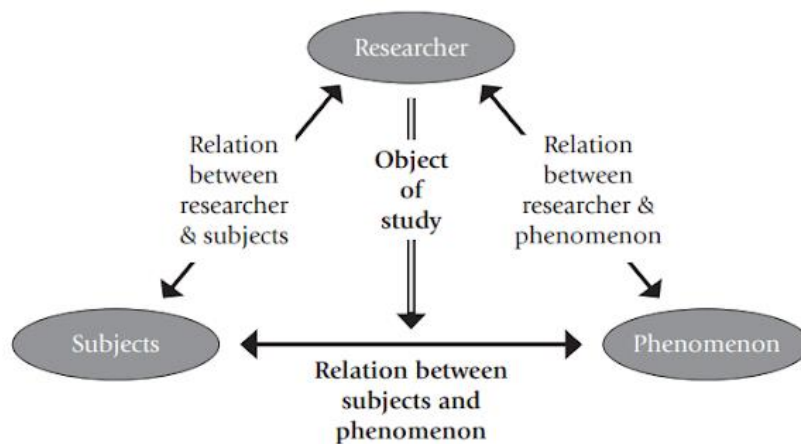


Figure 8. Phenomenographic relationality (reproduced from Bowden, 2005, p.13 with permission from the author)

Given the longevity of the scientific method, post-positivistic approaches are still developing and as such are subject to debate and change (Guba & Lincoln, 1994). As one of the newer approaches to qualitative inquiry, this situation is true of phenomenography. The first sub-category of phenomenography was noted by Marton (1986, p.38) when he acknowledged the practice of ‘pure’ phenomenography. Marton (1986) posits that ‘pure’ phenomenography takes as its focus discovering and describing how people conceptualise various aspects of reality, as opposed to phenomenography that focuses on aspects of education and learning, with the former type being derived from the latter original approach. To this sub-categorisation, Hasselgren & Beach (1997, p.191) posit five different types of phenomenography within the work of those who originated and developed the approach in Gothenburg University; ‘Discursive, Experimental, Naturalistic, Hermeneutic and Phenomenological’. While Bowden (2000, p. 3) contrasts what he terms ‘developmental phenomenography’ to ‘pure’ phenomenography.

Bowden (2000) posits that ‘pure’ phenomenography seeks to describe how people conceive phenomena that subjects come across in everyday life. It is motivated by curiosity and the outcomes are an end in themselves (Green & Bowden, 2009). Whereas ‘developmental’ phenomenography is usually focused in educational institutions and is used to solve problems or address specific issues (Bowden & Green, 2005; Green & Bowden, 2009). Developmental phenomenography aims to establish how people experience some aspect of their world, with the purpose of enabling them or others to take action to change it (Bowden, 2000). Given the differing focus of these approaches Bowden asserts that developmental phenomenography explicitly accounts for contextual factors that influence how people construct their experience of phenomena. For this reason, he suggests that as every aspect of the research is relational and methodological issues become central to any inquiry as an object of research focus (Bowden, 2000; Bowden & Green, 2005; Green & Bowden, 2009).

It is argued that this research inquiry sits across pure and developmental phenomenography. Its original aim was to simply find out how students conceived of the experience of learning in flipped learning, hence it is 'pure' phenomenography. However, taking place in a formal educational setting it could be considered 'developmental' phenomenography, albeit that the research did not address a specific issue or problem. However, it was predicted (and hoped) that discovering students' conceptions would reveal ways of conceiving the phenomena that I could not anticipate. Furthermore, it was also recognised that the conceptions produced may reveal issues or problems experienced by students when learning in this pedagogic approach. Therefore, at the very least, the conceptions derived would cause me to reflect on my practice. Moreover, if problems or issues should come to light I would be able to address these by changing my practice. Thus, while the research did not set out to address an issue or problem, it was anticipated that they may be revealed in the course of the research inquiry.

Regardless of what specific term is employed to describe the focus of phenomenographic analysis, all phenomenographic research is predicated on the particular use of agreed conventions that establish the commonalities across all phenomenographic approaches. These conventions allow phenomenography to cohere as a methodological approach underpinning a field of research. These conventions are described below.

3.4.1 Second-order perspective

A fundamental aspect of phenomenography is that it takes as its focus human conceptions of reality, not the ontological basis of that reality. Therefore, the aim of phenomenography is to describe, analyse and understand people's experiences of various aspects of the world. Thus, the focus of all phenomenographic research is of a 'second-order perspective' (Marton, 1981, p.177). However, by focusing on a second order perspective phenomenography does not seek to pass judgement on what participants describe rather, it is focused on understanding how participants conceive, and therefore describe, their reality. This aspect of phenomenography aligns with my values as, through its constructivist underpinnings, phenomenography seeks to grant participants authority through foregrounding their voices. Indeed, my interest in learner agency – to create an educational environment where all students are included and able to make choices about their learning - is a key reason why I have chosen phenomenography rather than phenomenology for this research inquiry as phenomenography's focus is the people experiencing reality rather than the phenomena being experienced (Marton, 1981). Phenomenography's constructivist approach renders the researcher as the 'facilitator of multi-voice reconstruction' (Guba & Lincoln, 1994, p. 112). However, both the issue of description as reality and the issue of whose voice is being presented have been points of critique from outside of the field.

Phenomenography has been critiqued for its assumption that language can give access to reality and (Francis, 1993) and because the process of analysis that participant contributions go through abstract participant input to the point obscuring their agency (Webb, 1997). However, Marton (1981) is clear that phenomenography seeks to access aspects of reality by exploring individual and socially structured experience with the latter being what is shared between the participant and the researcher. Furthermore, language – as shared - is the primary dialectic mode through which to do this. Thus, interviews are the default method used to generate data in phenomenography (Marton, 1986). Subsequently, how the interview is approached and conducted becomes important in ensuring that the researcher affords space to participants to describe their experience and when clarifying points, seeks only to elaborate participant's experiences. Therefore, interviewers must be vigilant about translating that experience in any way that would obscure or overwrite a participant's explanation.

Phenomenography is comfortable with the ephemeral and relativity of the aspects of reality it seeks to capture. However, when abstracting these moments its methodological process reveals the presupposed communal plane of thinking shared across group experience in society, in our case 'industrialised Western society' (Marton, 1981, p.180). Thus, if the aim of phenomenography is to discern and categorise shared descriptions of aspects of experience through which people make sense of their reality, then a researcher who shares their participants' cultural background is well positioned to undertake this task. Albeit that they must take precautions to protect against their biases inadvertently influencing this process. Thus, providing the researcher follows the phenomenographic process with integrity, acts ethically and maintains reflexive awareness of power relations throughout their inquiry they may confidently distil participants' contributions into a schema through which to ascertain the contours of the collective experience as described by the group. In this way it can be argued that participants' agency is not obscured, it is translated into collective understandings.

3.4.2 Structure of awareness

In phenomenography, consciousness is theorised as a 'structure of awareness' within which learning is understood as 'coming to experience the world, or aspects of the world, in particular ways' (Marton & Booth, 1997, Prologue). Schematising their theory of learning Marton and Booth (1997) posit that the act of learning is comprised of a simultaneously experienced 'how' we learn and 'what' we learn, with the former divisible into further aspects of 'how' and 'what' as per Figure 9.

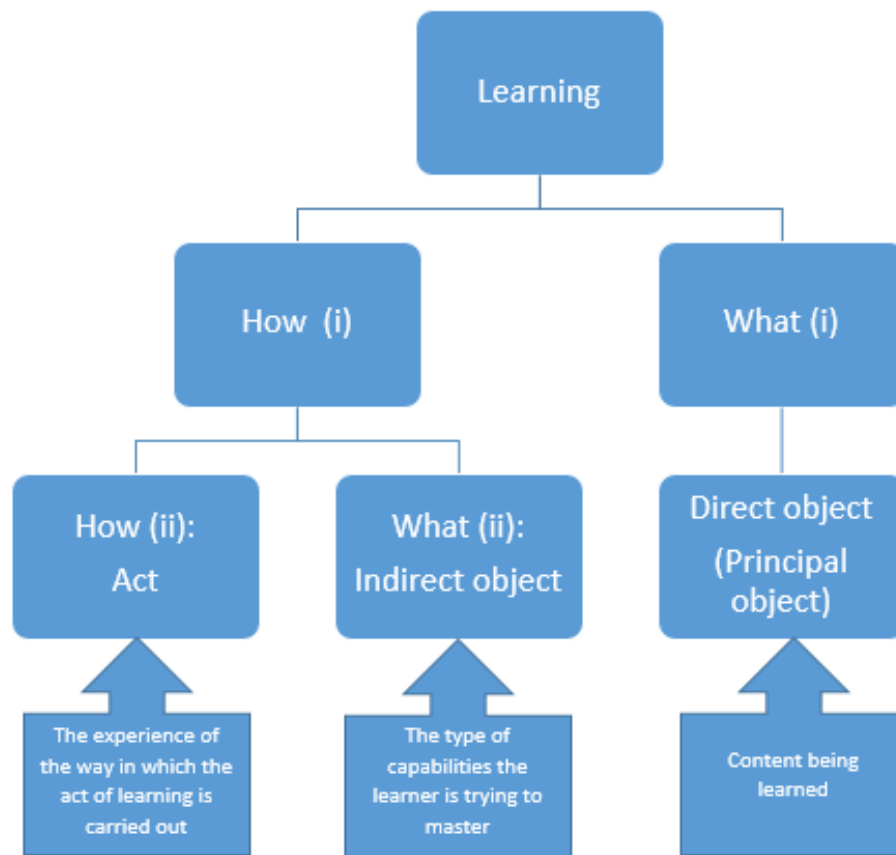


Figure 9. Learning: Different facets of an undivided whole (adapted from Marton & Booth, 1997, p. 84 with permission from Taylor & Francis Group)

They then elaborate on this schema to situate it within a broader ‘science of experience’ (1997, p.87) whose ‘basic unit of experience’ relates to how we experience the different aspects of learning – or whatever phenomenon is the focus of research - and relates to the previous figure as shown in Figure 10.

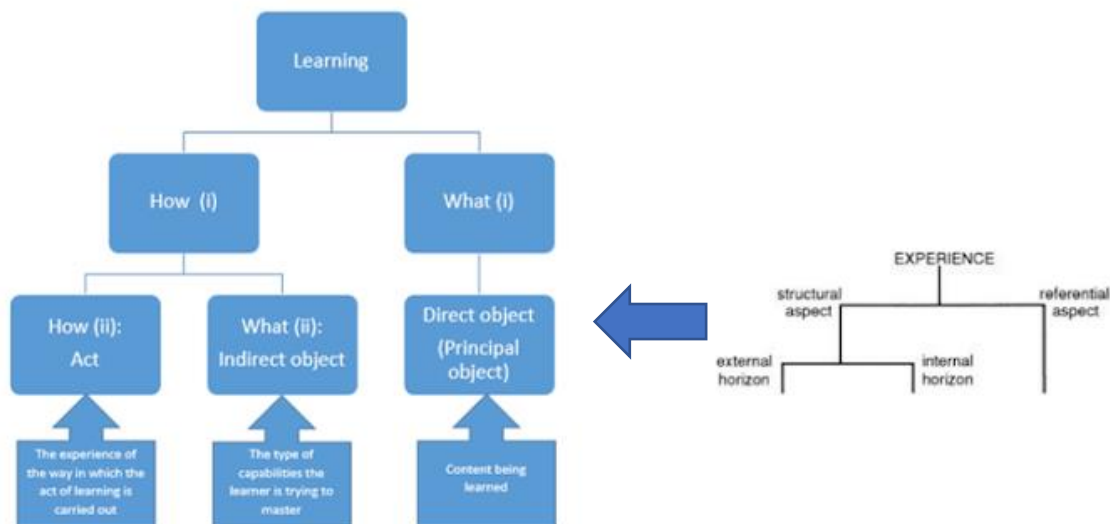


Figure 10. How the basic unit of experience relates to the different aspects of learning (adapted from Marton & Booth, 1997 with permission from Taylor & Francis Group)

The basic unit of experience itself is comprised of a structural and referential aspect where the former is further comprised of an external and internal horizon, as per Figure 11.

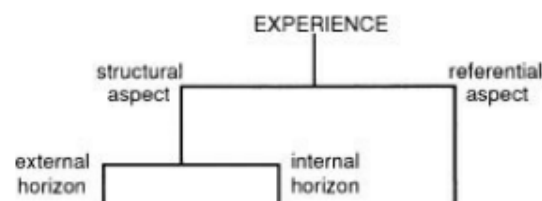


Figure 11. The unit of experience depicting the different properties present when experiencing something (reproduced from Marton & Booth, 1997, p.87 with permission from Taylor & Francis Group)

The 'structural aspect' relates to the structure of the experience, that which is discernible as common in all the accounts of the experience, while the 'referential aspect' refers to the meaning of the experience, that demonstrates qualitative differences across accounts of the experience. The structural aspect is further comprised of an internal and external horizon. The internal horizon are the parts and their relationship which comprise the whole of the phenomena experienced while the external horizon is that which surrounds the phenomenon experienced and makes the contours of that which is experienced discernible. Namely, the internal horizon may be considered the content of the phenomena while the external horizon is context, be that real and based on previous experience of the phenomenon or intertextual and based on socio-cultural expectations of the phenomenon.

Bringing these figures together, results in Figure 12, which represents the 'structure of awareness' for learning where all aspects of learning are experienced simultaneously regardless of the approach to learning that is taken, be it atomistic or holistic (see Marton & Booth, 1997, p. 104).

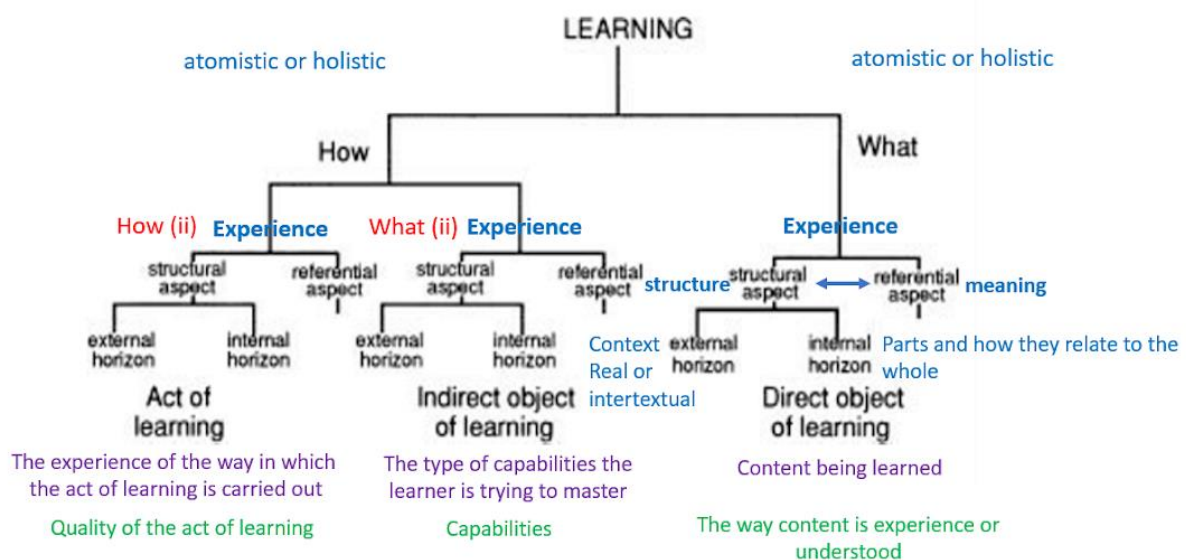


Figure 12. The structure of awareness for learning (adapted from Marton & Booth, 1997, p. 91 with permission from Taylor & Francis Group)

Adapted for flipped learning the structure of awareness becomes Figure 13, with the internal horizon of the How (ii) being the component parts that make up flipped learning – namely the teaching material and practice and the external horizon of How (ii) being students' previous experience and cultural expectations of university teaching and learning. Thus, Figure 13 represents the context of this research inquiry in phenomenographic terms. It also indicates where this research inquiry sits in terms of its focus. Namely, this research inquiry is focused on the act of learning, as it seeks to understand student experience of the way in which the act of learning is carried out in flipped learning pedagogy. However, given that all aspects of learning are experienced simultaneously, it would be anticipated that related differences in experience may be found in the type of capabilities the learner is trying to master and the content being learned.

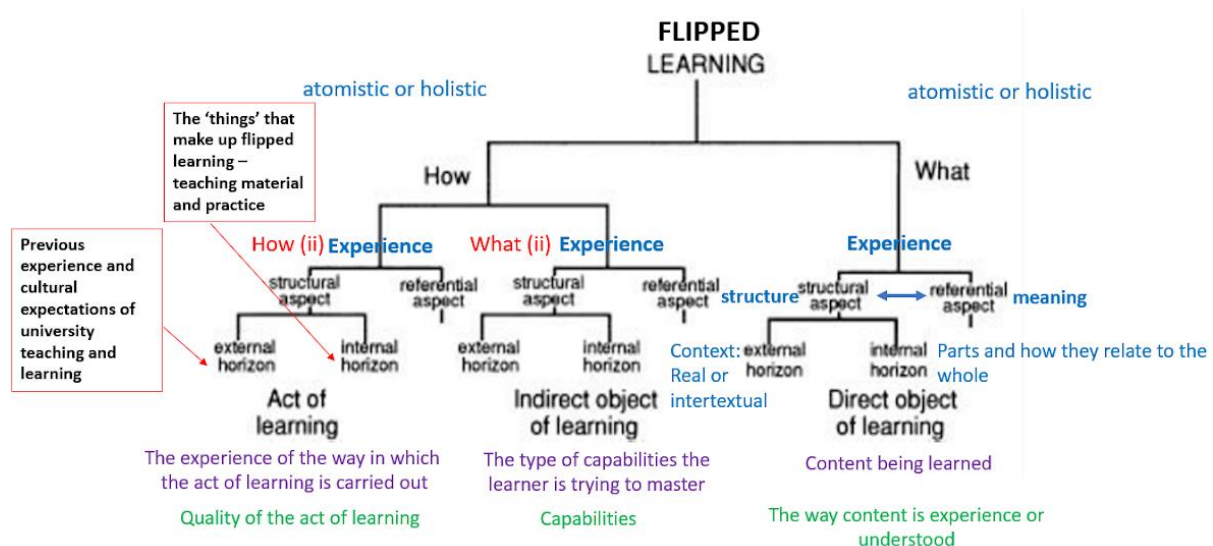


Figure 13. The 'structure of awareness' for flipped learning (adapted from Marton & Booth, 1997, p. 92 with permission from Taylor & Francis Group)

3.4.3 Categories of description

Conceptions are the units of description in phenomenography and they describe how participants' experience reality. As part of the phenomenographic process participants' conceptions of reality are gathered together to make categories of description. Categories of description are comprised of participants' conceptions distilled by the researcher into a finite number of classifications. This is why these groupings are referred to as descriptions, as they are removed from participants' original conceptions (albeit that these by nature may only ever be descriptions of reality). Categories of description have structural and referential aspects that relate to the 'how' and the 'what' of experience. It is these aspects of peoples' awareness, and the structure between them, that provide the theoretical framework for understanding various ways of experiencing a phenomenon (Marton & Booth, 1997).

Theoretically, a phenomenon can be perceived in an infinite number of ways. However, in his article introducing the field of phenomenography, Marton (1981, p.181) asserts that following on from previous empirical work, he and fellow founder of phenomenography Roger Säljö, had discerned a limited number of qualitatively different ways people can experience a phenomenon; usually between two or five (Marton, 1986). This is due to people's 'limited capacity for simultaneous focal awareness' (Marton & Booth, 1997, p.101). Subsequently, within the field it has been established that experience may be described in typically six qualitatively different ways (Åkerlind, 2012). Once established these categories, and the relations between them, form the 'outcome space' (Marton & Booth, 1997, p. 42)

for the phenomenon under investigation which is typically represented as a diagram (Barnard et al., 1999) that acts as a 'synonym for the phenomenon' (Marton, 1994, p.29).

Categories of description refer to the limited amount of ways a phenomenon can be experienced at any particular moment in time. The categories the researcher discovers are presupposed to be mutually exclusive but logically related to one another. Typically, this relation is posited as hierarchical with each category capable of being subsumed within the category above, with the top category being an essential aspect to all the subsidiary categories (Marton, 1986). The aim of creating categories of description is to capture forms of thought as they exist at the time of the interviews (Marton, 1981).

However, both the abstraction involved in creating categories of description and the presupposed hierarchical structure of the categories have been points of critique of the field. With reference to deconstruction's rejection of unmediated reality, Webb (1997) criticises phenomenography for its claim to researcher objectivity, specifically in the application of its analysis process used to generate the categories of description. However, for me, this critique is misleading as it fails to acknowledge Marton's (1981) discussion of the collective mind where Marton acknowledges shared Western ideas and their ideological functioning. Thus, in my reading of Marton, rather than making a claim to researcher objectivity he makes a case for participant and researcher collectivity, where that collectivity is secured through circulating Western ideologies and emerging forms of thought that form 'common categories of interpretation, part of "the perceived world"' (Marton, 1981, p.197). Thus, the issue becomes not an issue of abstraction but an issue of researcher reflexive awareness and vigilance to ensure trustworthy interpretations of collective forms of thought.

The presupposed hierarchical structure of the categories of description has been critiqued as patriarchal (Hazel et al., 1997). However, while the hierarchical relationship is a methodological presumption, in reality, phenomenographers have presented their findings in alternative ways. Ekeblad (1996) presents an outcome space as a grid with several dimensions while Morris (2006) suggests that instead of representing the categories as a hierarchy a linear structure can be adopted to indicate a messier interrelation between categories and Åkerlind (2012) notes that structures with branches are always an option. This recognition of the potential for less ordered categories has been important for my adoption of phenomenography as I share Hazel, Conrad and Martin's (1997) wariness about the underpinning ideologies related to hierarchical taxonomies. Furthermore, to know there is scope in the field for individual variation seems congruent with the recognition that each phenomenographic investigation is unique as phenomenographic research is shaped by the context of the aspect of reality it seeks to investigate (Bowden, 2000). As the categories of description, and the particular configuration linking them, are the primary outcome of phenomenographic research, it

is reassuring to know that relationship between categories of description that comprise the 'outcome space' need not be hierarchical but may take a form that reflects an individual research inquiry's findings.

3.4.4 Dimensions of variation

As shown in Figure 10, the unit of experience consists of two interrelated aspects relating to the phenomenon being conceptualised: the structural and referential aspects. Therefore, as the means through which experience is described, conceptions of experience also have these aspects. The referential aspect indicates the global meaning of the object while the structural aspect represents the particular mixture of qualities of the phenomena that have been discovered and concentrated on during the phenomenographic process (Marton & Pong, 2005). Thus, categories of description as the researcher's distillation of participants' collective conceptions of experience must also have structural and referential aspects.

Structural aspects are those which are discerned as common to all the categories of description while referential aspects which connote the differing meanings of the phenomenon demonstrate the qualitative difference that exist across the categories of description. However, as Marton and Pong (2005) argue, meaning is dependent upon difference and to discern meaning is to assume variation in meaning. Thus, there is 'no discernment without variation; hence every feature [aspect] discerned corresponds to a certain dimension of variation in which the object is compared with other objects' (Marton & Pong, 2005, p. 336). Therefore, dimensions of variation provide further explanation of the qualitative differences that distinguish the categories of description from one another while at the same time articulating their relationship to one another.

Dimensions of variation across categories of description are typically presented in tables with structural aspects creating the vertical axis and referential aspects create the horizontal axes to show the variation across the structural axis. As referential aspects relate to the meaning of the phenomena, they also typically denote the differing categories of description (see Figure 14 and Figure 15).

Table 2. The referential and structural aspects of the categories of ways of describing the project of being at university

Structural aspects	Referential aspects		
	Gaining	Learning	Changing
General	1. Being at university is about getting a degree	2. Being at university is about learning things	
Self		3. Being at university is about learning about myself	4. Being at university is about changing as a person
World			5. Being at university is about changing the world

Figure 14. Typical written representation of a phenomenographic outcome space demonstrating dimensions of variation (reproduced from Ashwin et al. (2016, p. 968) with permission from John Wiley & Sons Ltd on behalf of the British Educational Research Association)

Table 2. Summary of dimensional characteristics across categories.

	A: Feedback as telling	B: Feedback as guiding	C: Feedback as developing understanding	D: Feedback as opening up a different perspective
Focus	Factual information on marks, 'correct' answer, 'correct' way of doing something	Factual information; evaluative information on performance, potential improvement	Explanatory information for understanding and improvement	Information that shows or explains alternative views; does not have to be 'right answer'
Agency	External only, emphasis on 'expert'; peer input has no impact	Mainly external; usually prioritise 'expert'; some peer input; emergence of internal agency – own thoughts, own sense of feel	External and internal; occasional input sought from expert	External and internal; open to all ideas even if not 'correct'

Figure 15. Extract from a typical written representation of a phenomenographic outcome space demonstrating dimensions of variation (reproduced from McLean et al. (2015, p. 927) with permission from Taylor & Francis)

3.4.5 Quality in phenomenographic research

In the positivist research tradition validity and reliability are requisites for rigour and are markers of research quality, whereas for qualitative approaches these requisites have been translated as credibility, transferability, dependability, and confirmability to ensure trustworthiness (Guba & Lincoln, 1994) and transparency (Cohen et al., 2017). Morse et al. (2002) argue that strategies for

ensuring rigour in qualitative research must be built into the research design as part of the research process. They suggest that these strategies include verification and ‘investigator responsiveness, methodological coherence, theoretical sampling and sampling adequacy, an active analytic stance, and saturation’ (Morse et al., 2002, p. 17) and verification strategies. Phenomenographic research incorporates these strategies by the researcher keeping an open mind to be open to discovering the categories of description (Marton, 1986) in the process of inductive analysis (Swain, 2017). Thus, to ensure the credibility of their research phenomenographers adopt ‘interpretative awareness’ (Sandberg, 1997, p.208) during the rigorous processes of attentive transcript-reading, iterations of analysis, and validation of the categories and dimensions against the research data (Bowden & Green, 2005; Bowden & Walsh, 2000; Cherry, 2005). Furthermore, it is recommended that phenomenography is undertaken in a research group to establish inter researcher reliability when distinguishing categories of description (Ballantyne & Bruce, 1994; Bowden & Walsh, 2000).

That the particular shape of any phenomenographic research inquiry is predicated upon the motivations and purposes of that particular inquiry may account for the differences in practices across the range of existing phenomenographic research (Åkerlind, 2005; 2012; Bowden & Green, 2005; Bowden & Walsh, 2000). Critics of phenomenography perceive such differences as a threat to the approach’s methodological validity. Indeed, this is one of the reasons given by Tight (2016) for his positioning of phenomenography as a research design, rather than a methodology or theory. However, addressing the question of reliability in phenomenographic research, differences in specific researcher practices seem appropriate for research that investigates context specific ephemeral experiences.

3.4.6 Limitations of phenomenography

Noted limitations of phenomenography pertain to the requirement for novice adopters of this approach to conduct semi- structured interviews, the temporality of the data produced and the amount of time required to conduct phenomenographic research (Bucks & Oakes, 2011). During interviews vigilance is required to hear and validate participant experience whilst trying to ensure probing and confirming questions do not translate or overwrite the intention of the participant’s description (Åkerlind 2005a, 2005b; Bowden 2005). It is noted that for those developing their interviewing skills and seeking expanded explanation and clarification from participants, maintaining interviewer objectivity through silence and non-specific probing, may prove difficult to sustain. However, to counter any potential bias resulting from the effect of interviewers developing their skill sets, attention can be given during analysis to searching for any undue interviewer influence and data deemed to be contaminated can be eliminated (Bowden, 2005).

The temporality of the data produced in phenomenography has not proven to be an issue as I am specifically interested in how a particular group of students experienced flipped learning on the course that I led and taught. Had I wished to produce research that was potentially more generalisable, I could have selected a different methodological approach with a larger sample and different research methods. For example, I could have sought to establish if the students on the course found flipped learning more convenient than traditional blended learning. For this study I could have used a survey with either a digital or hard copy questionnaire that was distributed in teaching sessions and on several occasions (to garner the largest possible response). For nuance in the study I could have created a series of Likert scale questions to give quantitative values to qualitative data (Joshi et al., 2015). This would allow me to calculate the mean and standard deviation to show the variation in the data set (Boone & Boone, 2012). This method was used by Pierce and Fox (2012) to measure the attitudes of renal pharmacotherapy students toward flipped learning. Within such a study I would still be working within the interpretivist (Waring, 2012) and constructivism (Gibson, 2017) paradigms, albeit with leanings towards positivism or post positivism (Guba & Lincoln, 1994). However, as a practitioner researcher my professional interest was in the specificities of the experience of students on a course I was responsible for. In this way the results are intended to give me insight to my professional practice with the aim of improving the educational experience of future students who will share similar competing professional and domestic commitments as the participants in this present research. Thus, this is why phenomenography is a suitable approach to select for this research inquiry.

The amount of time required to conduct and analyse phenomenographic interviews was not an issue in this research inquiry as it was taken to be similar to what would be expected in other interpretive and qualitative approaches e.g. phenomenology. Also, the time required to analyse interviews to create the categories of description and establish the structural and referential aspects of the dimensions of variation is noted as being significant. This is due to multiple iterations of both the categories of description and the dimensions of variation being required (Åkerlind 2005a; Bowden, 2005; Herbert, 2016). None-the-less, the time required of this process may be accounted for when it is positioned as part of how 'interpretative awareness' (Sandberg, 1997, p.208) in phenomenography that adds to an inquiry's credibility and trustworthiness (Collier-Reed, et al., 2009; Sin, 2010).

3.5 Ethical Considerations

Practical ethics of the research are covered by adherence to ethical guidelines (BERA, 2018) in designing and undertaking this research inquiry (see Appendix 1). However, as necessary as adhering to the practical ethical principles of anonymity, confidentiality and the right to withdraw (BERA, 2018) are, in qualitative research the much wider and imbedded ethical issues of power relations that need

to be considered to ensure the integrity and trustworthiness of research inquiries. This is particularly true in practitioner research where the roles and activities of researcher and practitioner exist in an ‘intentionally blurred’ dialectic (Cochran-Smith & Lytle, 2007, p.31). Indeed, practitioner research could be said to further tip the power imbalance between educators and students as these roles are doubled in the respective roles of researcher and participants. Further complications exist in practitioner research where the research participants are students who are, or are likely to be, known to the researcher. Albeit, that these power relations are positioned as fluid as during the research process participants possess power as they hold the answers researchers seek (Karnieli-Miller et al., 2009). None-the-less, the wider issues of power relations and researcher reflexivity saturate the research process and as such are issues that need to be considered from an inquiry’s inception.

3.5.1 The evolution of the research questions

Pryor (2010, p.161) argues for the methodological centrality of research questions as they represent ‘a great deal of thinking about the fundamental issues that underpin the project, the way the research is practised and the knowledge that it will hope to produce’. Noting the often-overlooked ‘complexity’ of selecting research questions, he positions them as fulfilling the dual purposes of pinpointing and communicating the methodological positioning of the research and researcher(s) to various audiences be they co-researchers, participants or readers. The research questions finally settled upon for this research inquiry were as follows.

The central research question is:

1. How do students¹ conceptualise their experience of flipped learning?

Two sub-questions relating to this central question are:

2. What is the variation across conceptions?
3. What can these conceptions and the variation across them tell us about flipped learning?
(i.e. what does it add to scholarship in this area?)

Given the complexity of selecting research questions noted by Pryor, the questions above represent the final iteration of one single research question that motivated this research, namely: ‘What are students’ experiences of flipped learning? However, as Pryor alludes to, the key phrases in the final version of these expanded research questions work to pinpoint and communicate the methodological approach and methods used in this research inquiry. The phrases used in the final research questions reflect the methodological approach adopted for the research enquiry with ‘conceptualise their experience’ and ‘variation across conceptions’ positioning the research as interpretivist, whilst also using the recognisable lexicon of phenomenography thus, positioning the research as

phenomenographic research within the interpretivist paradigm. Furthermore, the focus on 'experience' may also be read as indicating the primacy of a qualitative approach and the primary research method – interviews - whilst also alluding to the phenomenographic approach being used. In this research inquiry the aspects of awareness being investigated are, according to the students who experienced the phenomena, 'What is flipped learning?' and 'How does flipped learning support learning?' These questions will be returned to below to further elucidate ethical considerations pertaining to interviews being used as the research method in practitioner research. I consider these ethical considerations part of the transparency required to build trustworthiness in the justification of the research design being used.

3.5.2 Doing reflexive phenomenography

The aim or purpose of any phenomenographic research and the methods chosen to collect phenomenographic data shape the process of phenomenography. However, no matter what these are the process of conducting phenomenographic inquiry remains as per outlined in Figure 16.

Notably, this diagrammatic representation of the phenomenographic research process does not include a stage for devising the research question(s). This may be due to the fact that all phenomenographic research is aimed at discerning the component parts of the outcome space for the experience of the phenomenon being studied, namely people's understandings of the phenomenon.

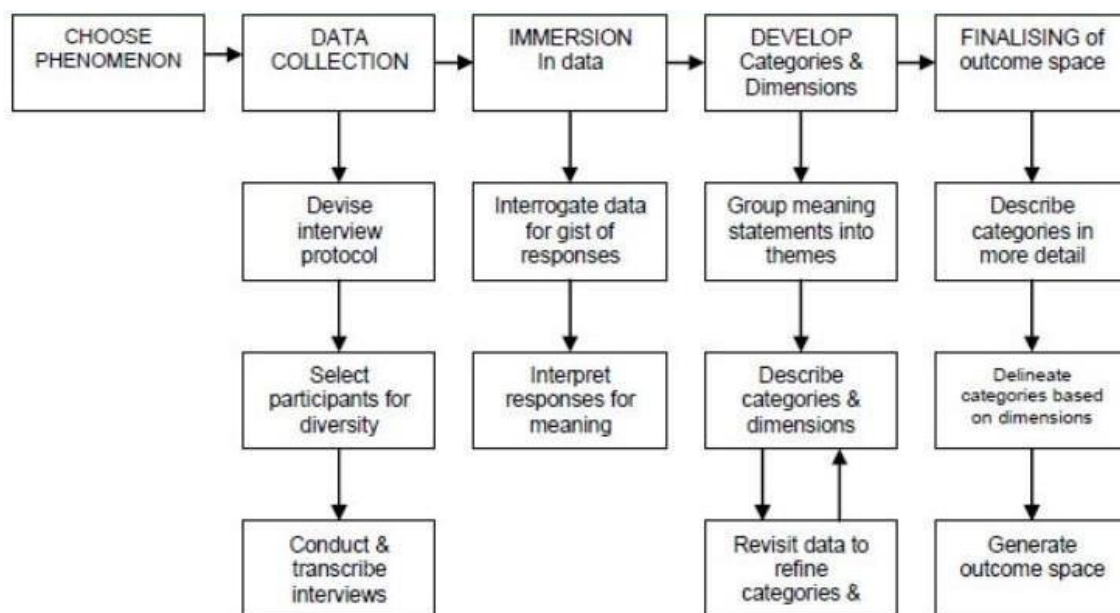


Figure 16. The process of conducting phenomenographic inquiry (based on Herbert and Pierce (2013), published by Herbert (2016) reproduced with permission from the author)

However, in considering the purpose of phenomenographic research, an early adopter of phenomenography Bowden (2000, p.7) offers the overview given in Figure 17. By focusing on the purpose of the research inquiry to provide a focus and guide action, Bowden's presentation of the phenomenographic research process more readily allows the ethical implications of these stages to be considered as per Figure 18.

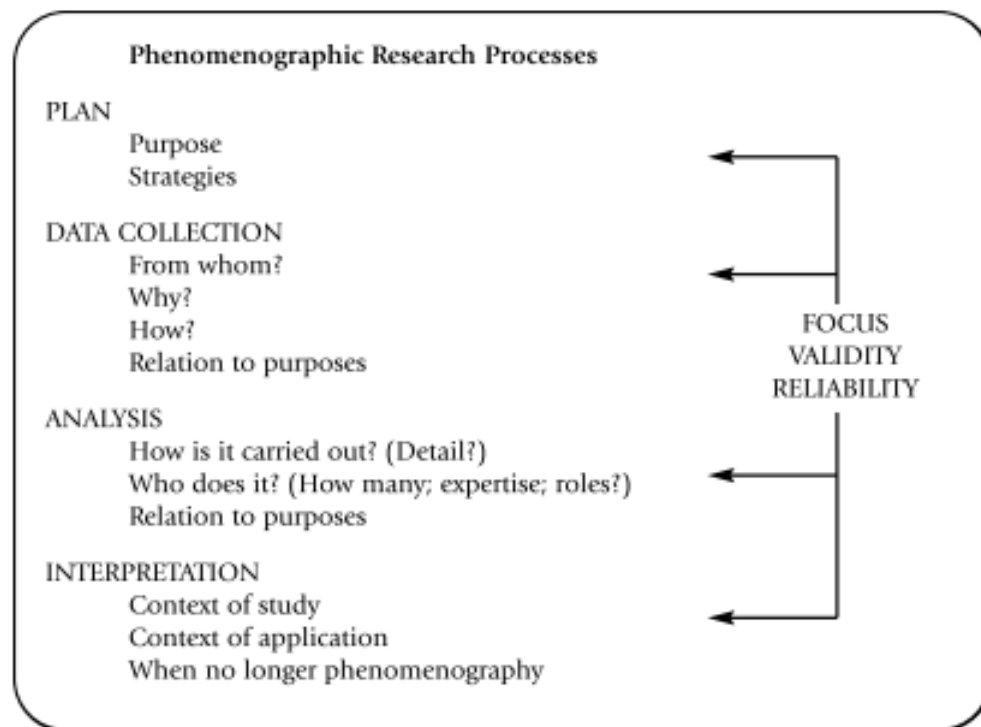


Figure 17. Phenomenographic research process Bowden (2000, p.7) (reproduced with permission from the author)

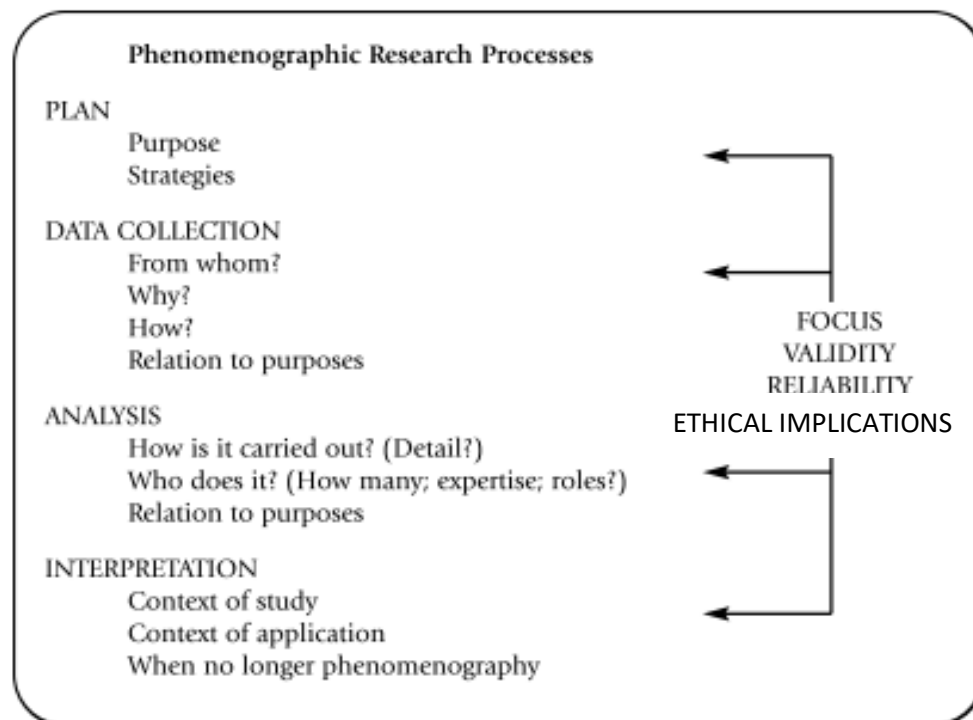


Figure 18. Phenomenographic research process with centralised ethical considerations adapted from Bowden (2000, p.7) (adapted with permission from the author)

Developmental phenomenographic research and practitioner research often happen in an educational setting where research participants are in pre-existing unequal power relationships with researchers. Thus, a focus on ethical implications from the outset of the research process is warranted and should be encouraged. Indeed, ethics permeates every aspect of research from the start and researchers are required to make ethical decisions throughout the research process (Clough & Nutbrown, 2012). Likewise, as Wellington et al. (2005, p.104) posit, research is a social and political activity and as such researchers need to be cognisant that 'their work carries a heavy ethical load'. Thus, foregrounding the ethical aspects of every stage of research as shown in Figure 17, centralises researchers' ethical obligations while contributing to revealing the dynamics of power required of 'doing reflexivity' (Skeggs, 2002, p.364), as well as helping researchers to guard against bias in their research (Galdas, 2017).

3.6 Research Methods

Although it is possible to analyse pre-existing (Armstrong & Hallett, 2012) or historical personal accounts using phenomenography (Hasselgren & Beach, 1997), Marton (1986) notes that interviews are the predominant method of data generation in phenomenography. Interviews are typically semi-

structured using either ‘problem questions... [or] ‘what is X’ (Bowden, 2000, p.8) prompt questions but may also be structured around the use of vignettes (Hallett et al., 2019). Phenomenography aims to construct a collective ‘pool of meaning’ (Marton, 1986, p. 43) drawn from the researcher’s selection of individual’s utterances that they find relevant or interesting in light of the question being asked. In doing so it creates a collective account of a phenomenon from a group of individual perspectives. Thus, individual interviews are the dominant data generation method in phenomenography and this is why they were chosen for this research inquiry.

However, prior to the research inquiry being a phenomenographic inquiry, it had been conceived as an action research (McNiff & Whitehead, 2010) inquiry and specifically a pedagogical action research (PAR) (Norton, 2018) inquiry. At that stage of the research it was designed as an interpretivist (Waring, 2012) study using a mixed-methods (Biesta, 2013) design. The original inquiry was constructed to use an exploratory on-line questionnaire to gather initial information that would then be used to devise interview questions for individual semi-structured interviews. A selection of coding types was to be used to analyse the data. Namely, structural, descriptive, initial and concept coding (Saldaña, 2015, pp. 68-124). Alternatively, thematic analysis could have been used (Braun & Clarke, 2006). However, it was decided that this inquiry did not meet the criteria for PAR in terms of iterative cycles of curriculum development. Therefore, known for being developed within Higher Education for the specific purpose of investigating learning and teaching in higher education (Tight, 2016) it was decided that phenomenography would be a good fit for this research inquiry.

3.6.1 Sampling

As a piece of practitioner research investigating the response of students to the introduction of a new pedagogic model of teaching, this research uses a purposive, convenience, non-probability, volunteer sample (Cohen et al., 2017). The entire cohort of 48 second year students were given the opportunity to volunteer to participate in this research. Invitations explaining the research inquiry and its purpose were sent by email to all potential participants on 15th April 2019. The email address used was my tutor address. It was recognised that using this address connoted our pre-existing power relations as educator and learner. However, it was reasoned that it would be likely that the students would not recognise my student account and may be more unlikely to read the email. This initial call for volunteers garnered two responses. However only one of the respondents attached a signed consent form. Given this, it was decided to gain verbal consent from the participants who volunteered to be interviewed at the start of the interviews (see Appendix 3). Initially the interviews were scheduled to take place between 16th April and 3rd May 2019 – as this covered the Easter holidays. However, given the low response rate, I decided to postpone the interviews until July, when term would be finished. To this end, two more emails calling for volunteers went out, on 12th and 16th July 2019. Overall, this

resulted in the inquiry attracting 10 participants drawn from across both colleges. Therefore, the final sample represented 21% of the student cohort. The participant group included students for whom I was not only year lead but also class tutor. This meant that all participants were familiar with me however, some were more familiar than others. As noted, all participants were female. However, this is unsurprising given that there were only two males on the course (one at each locale).

3.6.2 Pilot interviews

Pilot interviews are important to help interviewers to develop their interviewing skills (Åkerlind et al. 2005, Bowden, 2005, Kvale, 2007b). A pilot interview for this research inquiry was conducted on 29th March 2019. This was done with my director of studies taking on the role of interviewee. The questions for this interview were derived from a questionnaire that was constructed as part of pilot study undertaken during the taught phase of the doctorate. The pilot interview proved to be a very useful 'learning occasion' (Kvale, 2007b, np). Not only did it provide insight into the interview process, but it alerted me to the fact that I did not actually want to continue with the interview questions as they had been structured up until that point. This was because the questions were organised by topic and thus were too focused and directional (Appendix 2). Therefore, the questions as they were would constrain participants' responses by directing them to the aspects of flipped learning that I had pre-selected as being important. Thus, while my original interview schedule (Cousin, 2008) had succeeded in not having too many questions, I had failed to foreground participants' responses by over determining the details of our shared pre-determined content (flipped learning) in advance (Åkerlind, 2005; Walsh, 2000). This experience prompted me to reconsider the interview questions and the final interview questions were devised between March to June 2019.

Devising the correct interview questions for phenomenographic research and asking them in the correct way, is an important part of the phenomenographic process. This is because questions need to be open enough to allow research participants to choose which aspects of the phenomenon to focus upon (Marton, 1986). Phenomenographic interviews seek to know 'When the informants talk about this phenomenon: what do they talk about and how do they talk about it?' (Larsson & Holmström, 2007, p.57). Therefore, the aim is to allow participants space in the interview to present their experience. However, what the phenomenon being focused upon is, also needs to be agreed between the interviewer and the participant. Therefore, the interviewer needs to take care to gain agreement on the what the phenomenon is, but without doing so in a way that could influence a participant's responses. Furthermore, within practitioner research this may have to be done within imbalanced power relations that may already be unduly influencing participants to say what they think the researcher would like to hear (Mercer, 2007). Thus, due to the consideration required in this delicate balance a significant amount of time was taken to produce relatively few interview questions.

To collect an extensive account, it is typical for phenomenographic interviews to focus on two (Dall'Alba, 1998), three (Larsson & Holmström, 2007) or four (Dortins, 2002) key questions. In this research inquiry, these questions focused upon soliciting variation in students' experiences of flipped learning. To achieve this aim, and after many iterations, the final questions used in the interviews were as follows:

1. What was your experience of/Please would you describe your experience of learning in a flipped classroom model, that's the way you have been taught on SEN this year?
2. How did learning in this way make you feel?
3. Having learned in this way, what do you think the purpose of flipped learning is?
4. Is there anything else you would like to say about learning in this way?

This new set of questions was further piloted in two interviews conducted with obliging colleagues in late June 2019. Having piloted these revised questions I felt confident that they would elicit the open and self-directed responses that would encourage 'reflective articulation of experiences, ideas and conceptions' (Dortins, 2002, p.212). Thus, with appropriate follow up questions derived from participants' answers, these questions would produce substantial interviews about the phenomenon being discussed, as required in phenomenographic research.

3.6.3 Data Generation

Interviews to produce the data for this research inquiry were conducted by between July 10th – 22nd 2019. The majority of interviews were conducted on separate days. However, due to difficulties in finding compatible availability, the three final interviews were conducted on the same day. While this practice is not ideal, it was fortunate that these were the last interviews as I felt that my previous experiences of interviewing enabled me to cope with the demands of this schedule.

3.6.4 Interviews

The first two weeks in July were chosen to interview participants as it was close enough to term time for their experiences to be fresh yet exams would be finished. Also, they would either likely still be in work (as many of the students work in schools) or their children would still be in school. Therefore, I reasoned that by interviewing in early July I would not be likely to encroach upon family holiday time or summer research preparation for returning to third year. Such considerations are an important part of the ethical issues to be considered when undertaking research with human participants (BERA, 2018).

As is the norm in phenomenographic research interviews, the interviews were semi-structured. This method is used to allow the questions to be centred on the research focus but without being over

bearing. Thus, such interviews are 'meaning making events' (Cousin, 2008, p.73) where the interviewer and interviewee develop an understanding of the phenomenon being discussed by working together. However, more unusually, the interviews conducted were not face-to-face interviews but telephone interviews.

Within qualitative research telephone interviews tend to be seen as of inferior quality to face-to-face interviews (Cousin, 2008; Farooq, 2015; Irvine et al., 2013; Novick, 2008). This is due to the loss of non-verbal communication that is assumed to damage the building of rapport and the contextual interpretation of responses (Novick, 2008). However, choosing telephone interviews for this research inquiry offered the advantage of versatility for contacting participants who have competing commitments and are geographically disparate from the researcher (Cousin, 2008; Novick, 2008). Furthermore, if participants are known to the interviewer it is possible to build rapport before the interview. Alternatively, if participants are unknown to the interviewer, then giving a precis of the study by reading a script can work to build rapport (Novick, 2008).

In practitioner research, telephone interviews could actually be preferable in terms of alleviating rather than reinforcing asymmetrical power relations as the telephone allows interviewees to be in the place of their choosing and the telephone can afford them more anonymity (Farooq, 2015; Irvine et al., 2013; Novick, 2008). Furthermore, by centring the interview exchange on verbal communication only allows the interviewer to listen attentively without any visual distractions (Farooq, 2015) whilst also allowing them to take notes discreetly (Irvine et al., 2013). Additionally, in their study of the interactional differences between face-to-face and telephone interviews, Irvine et al. (2013, p.100) found that there was less 'researcher completion and formulation' in telephone interviews with no increase in substantive difficulties with understanding. Finally, and unexpectedly, they (2013, p.101) also found that 'acknowledgement tokens' were used less frequently during telephone interviews. Irvine et al. (2013) suggest that this may be due to the interviewer being busy making notes.

However, it may also be because a verbal acknowledgement during a telephone conversation has the opposite effect to a visual acknowledgement in a face-to-face interview, with the former taking on the feeling of an interruption. Again, this means that telephone interviews may be advantageous for interviewers developing their active listening skills. This is because when verbal acknowledgements are interpreted as interruptions, an interviewer quickly learns that they are not needed. This is especially so in the case in telephone interviews as interviewees are more likely to check the adequacy of their contributions with the interviewer (Irvine et al., 2013). Thus, in telephone interviews, interviewers can listen intently as participants say what they wish to say in the assurance that when participants come to their natural finish, they are likely to ask for feedback on the validity of their

responses. In this way, telephone interviewers may offer naturally occurring opportunities for probe and follow up questions (Rubin & Rubin, 2005).

The final aspect of interviewing practiced in the research interviews was 'bracketing' (Ashworth & Lucas, 2000, p.297). Bracketing refers to the need for researchers to set aside their assumptions to better facilitate entering the lifeworld of the participants they are interviewing. Ashworth and Lucas (2000) suggest that bracketing – although impossible to be complete – should be applied to keep an open mind throughout the phenomenographic research process. While in interviewing, bracketing helps to remove hazards in the way of researcher achieving attentive listening. Furthermore, Ashworth and Lucas (2000) suggest that phenomenographic interviewers should be empathic to their participants. This will allow them to leave their own lifeworld and its assumptions behind as they try to enter the lifeworld of their interviewees. In essence, during interviews such empathy is practiced through being open minded (Marton, 1986) , actively listening to participants (Green, 2005), and taking the interrogative stance required of 'doing reflexivity' (Skeggs, 2002, p.364). To ensure trustworthiness in the research process, one practical way of doing this suggested by Ashworth and Lucas (2000) and Cousin (2008) is for the interviewer to participate in an ongoing review of their interview techniques. As an example and demonstration of trustworthiness in this research inquiry, Appendix 4 provides an excerpt of my ongoing review of my interview technique that I did whilst conducting the research interviews.

3.6.5 Transcription

Transcribing interviews is recognised as a time when researchers come to familiarise themselves with their interview transcripts as it is a pain staking process that require researchers to reflect on the myriad of decisions they make as they record their interviews in written form (Oliver et al., 2005). However, for this reason, transcription is also recognised as a time intensive task (Åkerlind, 2005). Therefore, as a practitioner researcher working as a full time academic, I took the opportunity to apply for research funding to pay to have my interviews transcribed. None-the-less, like Åkerlind (2005, p. 116) I familiarized myself with the data through checking the transcriptions against the interview recordings and making any adjustments for 'meaning relevant errors' or notable changes in emotional tone. In this way I ensured that the transcriptions and the meanings drawn from utterances within them, accurately reflected the emphases and emotions of participants (Ashworth & Lucas, 2000). It is also possible to validate interview transcripts by allowing participants to read their interview transcripts, to check for accuracy and resonance with their experiences (Birt et al., 2016; Hallett, 2010, 2013). However, following Åkerlind (2012), I decided that this particular type of validity check would not be necessary. This is because phenomenographers asked participants to

recount and describe their specific experiences at a given point in time. Such accounts will be influenced by the time and place of telling, as well as being enmeshed within the relative nature of the research process. Therefore, to give interviewees the option to read interview transcripts may lead them to wish to revise their accounts in a way that may prove antithetical to the process of phenomenographic analysis.

3.6.6 Data Analysis

The aim of phenomenographic analysis is to discover the ways in which people conceptualise specific phenomena. However, the precise process of discovery is unique to each research inquiry (Marton, 1986). Phenomenographers subscribe to the idea of discovery or emergence of categories of description from the data through a constant process of iterative comparison (Marton, 1986). Although, it is recognised that researchers must inevitably play a role in the construction of the categories (Walsh, 2000) to varying degrees (Åkerlind, 2005a). Thus, the process of creating the categories of description is a hermeneutical balancing act of interpretation and understanding conceived as 'inherently problematic' (Barnacle, 2005, p. 48). However, it is a problem that phenomenographers should spend time grappling with to ensure the credibility of their analysis.

As Uljens (1996) notes, bracketing when analysing empirical data is not possible, as to produce a good interpretation a researcher must be familiar with knowledge in their field. None-the-less, he asserts that being knowledgeable does not hinder someone from keeping an open mind as it is normal to be able to consciously suspend our own understandings of a subject in order to aim to understand someone else's experiences and understandings or to enter their lifeworld. In recognition of this, Ashwin, et al. (2014, p.224) use the verb 'attempted' when describing researchers bracketing their understanding for analysis. Furthermore, Uljens (1996) also notes that phenomenography's foundational dialectic of meaning and structure takes phenomenographic analysis to a 'structural level' beyond concerns with individual differences. Thus, there can be variation within an individual's and between an individual's 'forms of thought' and 'functioning' (Marton, 1981). Due to this variation within as well as between individuals, the individual's experience and their lifeworld are subsumed into the collective when the categories for explaining the ways of experiencing the phenomenon are finalised (Uljens, 1996).

The process of creating the categories of description starts with analysis of each individual interview with the selection of interesting quotes based on relevance to the project (Åkerlind, 2012). However, the analysis should also be carried out empathetically to help avoid the influence of researcher assumptions (Ashworth & Lucas, 2000). Also, as the end product of phenomenography is known – up to six categories of description that are likely to be in hierarchical relation - researchers need to be

mindful of the influence this may impart during the analytic process. Thus, as Walsh (2000, p.20) notes, an inevitable tension arises in analysis as the researcher seeks to balance being faithful to the data, while aiming to create a 'tidy construction' to be used for some educational or explanatory purpose. To this end, Ashworth and Lucas (2000, p. 300) caution against researchers committing to 'premature closure for the sake of producing logically and hierarchically-related categories of description'. However, on the contrary, Åkerlind (2005a, p.71) cautions that leaving it too late to focus on structure risks the dialectic of meaning and structure upon which phenomenography depends not being sufficiently 'co-constituted in the final outcome space'. Thus, the key to dependability in phenomenographic research is the constant and consistent interrogation of the developing categories of description through both their referential and structural aspects of meaning.

As Marton (1986, p.43) notes, in practical terms this means that during the analysis process as the researcher moves their focus from individual interviewees to the meanings shared across the group, each of the selected quotes have two contexts against which they are evaluated. Firstly, the context of the interview from which they are taken and secondly, the 'pool of meaning' from which eventually groups of quotes with shared meanings will be classified into categories of description. It is during this point in the data analysis that researchers find themselves repeatedly checking their selected excerpts against the transcripts (Åkerlind, 2005a) as demonstrated in Appendix 5. They may also once again check the quotations against original interview recordings to ensure the quotes are being understood correctly in terms of the context in which they were uttered. This process is represented by Herbert (2016) in figure 16, in the third column between the boxes with the double arrows. Once the groups of quotations are established into categories of description they will then be distinguished and delineated from one another with regards to their differences to form the phenomenographic outcome space.

Dahlgren and Fallsberg (1991, p.52) suggest a commonly applied sequence of seven stages for analysing phenomenographic data, noting a fluidity and 'constant interplay' between the phases. While Sjöström and Dahlgren (2002, p.341) offer a slightly amended seven stages they note the 'mutual relationships' between the stages. As this research inquiry integrated and drew across both these systems to benefit from the nuance between them, both lists are included here in Table 3. The blue writing in the table highlights the significant difference between the two with the row called 'IR' indicating my interpretation of that difference. In the end, the analysis presented in this research inquiry favoured Sjöström and Dahlgren (2002) as after completing stage two of Dahlgren and Fallsberg (1991), I went on to complete stage two and beyond of Sjöström and Dahlgren (2002).

I found that the constant interplay between the seven stages of analysis took place as soon as I started to familiarise myself with the transcripts as in reading through the transcripts, I found it impossible to resist immediately compiling preliminary analysis about potentially emerging themes (see Appendix 5). Also, the data from the research inquiry was analysed for two purposes. The first analysis of the interview data was produced for a university Learning and Teaching Day presentation in September 2019. To produce this analysis, firstly stage two 'condensation' (Dahlgren & Fallsberg, 1991) was applied through the selection of phrases of note through focusing on the experience, feeling and purpose of the phenomenon as drawn from my interview questions (Åkerlind, 2012) (see Appendix 8). However, this felt unwieldy to analyse, so stage two 'compilation' (Sjöström & Dahlgren, 2002, p.341) was adopted. This preliminary analysis that took place from the end of July to mid-September 2019 resulted in four themes; access, orientation, reassurance and motivation.

However, as noted in an analytic memo of 28th October 2020, these themes were the result of superficial 'descriptive coding' (Saldaña, 2015, p.76). However, they are useful to include here as they offer a stark contrast to the results of the final phenomenographic analysis applied to the data.

In total, the process of applying phenomenographic analysis and creating the categories of description and outcome space took me three years part-time from October 2019 to October 2022, with the most intensive periods of analysis occurring in Easter and Summer vacations. Lengthy periods of time to complete analysis are not unusual for practitioner researches who can spend months at a time away from their data (Åkerlind, 2005a). However, as Åkerlind (2005b, p.126) notes, this can allow researchers to return anew to their analysis with an open mind and an interrogative attitude as they return with no commitments to previous 'hypothesis about meanings and structure'. Indeed, while perhaps not ideal, this process did help me as a lone phenomenographer to feel confident about the trustworthiness of my analysis. When commenting on knowing when to stop in phenomenographic analysis Åkerlind, (2005a, p.66) notes that the best way to describe when a researcher knows when to stop is when they have an 'ah ha' response to the underlying meanings that they have extracted. To this I would add that adopting a few different perspectives for some further interrogations of the data will also help a researcher feel secure in the credibility and trustworthiness of their analysis.

7 Stages of Phenomenographic Analysis		
	Dahlgren & Fallsberg (1991)	Sjöström & Dahlgren (2002)
1	Familiarisation. The researcher, although in most cases also the interviewer, has to read through the protocols carefully, to get acquainted with them in detail. This stage is also necessary for making required completions and corrections.	Familiarization which means the researcher becomes familiar to the material by means of reading through the transcripts. This step is important in making corrections in the transcripts.
2	Condensation. The most significant statements made by the subject are selected to give a short but <i>representative version of the entire dialogue</i> concerning a certain phenomenon.	Compilation of answers from participants to a certain question. The researcher should identify the most significant elements in answers given by participants.
IR	<i>Dealing with each script as a whole</i>	<i>Dealing with each answer separately</i>
3	Comparison. The selected significant dialogue excerpts are compared in order to find sources of variation or agreement.	Condensation , or reduction, of the individual answers to find the central parts of a dialogue.
4	Grouping. Answers which appear to be similar are put together.	Grouping , preliminary grouping or classification of similar answers.
5	Articulating. A preliminary attempt is made to describe the essence of similarity within each group of answers. (stages 4 and 5 may be revised several times before the analysis is assessed as satisfactory).	Comparison (preliminary) of categories.
6	Labelling. The various categories are denoted by constructing a suitable linguistic expression.	Naming of categories.
7	Contrasting. The obtained categories are compared with regard to similarities and differences.	Contrastive comparison of categories. It includes a description of the character of each category and similarities between categories.

Table 3. Seven stages of phenomenographic analysis: Dahlgren & Fallsberg (1991) and Sjöström & Dahlgren (2002) (reproduced from Dahlgren & Fallsberg (1991, p.52) with permission from Elsevier B.V.) and (reproduced from Sjöström & Dahlgren (2002, p.341) with permission from John Wiley & Sons, Inc.)

3.7 Conclusion

This chapter has set out the methodological underpinnings and approach adopted in this research inquiry. It has explored my positionality as a researcher and has given a detailed account of phenomenography and phenomenographic analysis. It then went on to consider research ethics before outlining the particular applications of the research methods undertaken in this research inquiry. The next chapter presents the key components of phenomenographic analysis, the categories of description which form the outcome space for the phenomenon, unit of experience and the dimensions of variation (Marton and Booth, 1997) providing support from the participant responses to show how these aspects of the experience of flipped learning were discovered in the data.

4. DATA ANALYSIS

4.1 Introduction

This chapter presents the outcomes of the phenomenographic analysis of the data generated through the semi-structured telephone interviews conducted with ten participants out of a cohort of forty-eight from 10th – 22nd July 2019. Each participant was drawn from a cohort of 2nd year BA (hons) degree students accessing higher education through further education colleges in the North West of England. Teaching on the combined honours degree programme took place once a week on a mid-week evening over three hours (6pm-9pm). All of the participants were mature students and were female. Neither of the two male students on the course volunteered to be interviewed. The analysis of the interview data presented here answers the main research question and three sub-questions motivating this research inquiry, namely:

1. How do students¹ conceptualise their experience of flipped learning?
2. What is the variation across conceptions?
3. What can these conceptions and the variation across them, tell us about student experiences of learning support in flipped learning? (i.e. what does it add to scholarship in this area?)

The analysis of the data was done following the protocols for phenomenographic analysis outlined in the methodology chapter.

As such, this chapter presents the categories of description before going on to present a separate discussion of each category with reference to research in the field of flipped learning discussed in the literature review. It is more typical of phenomenographic analysis to deal with the outcome space as a whole. Namely, discussing the categories of description through a focus on the variation between them. However, this thesis gives the categories of description in full followed by discussion of the categories. Following Ashwin et al. (2014, p. 968) this is done ‘to give a richer sense of the variation between the categories’. Therefore, this is done to enable a deep and multi-faceted understanding of what the variation between the categories mean in terms of participants’ lived experiences. Furthermore, as outlined in chapter two, in this research inquiry a theoretical framework comprised of SDT, CLT and SRL has been selected to analyse students’ experiences of FL. Thus, an in depth focus on the categories of description allows for this analysis to be conducted.

The chapter then proceeds to present the other aspects of phenomenographic analysis that make for a rigorous phenomenographic analysis; the unit of experience and the dimensions of variation. The unit of experience details the structural and referential aspects of the categories that elaborates upon how we experience the different properties of the experience (Marton & Booth, 1997). While the

dimensions of variation provide further explanation of the qualitative differences that distinguish the categories of description from one another while at the same time articulating their relationship to one another. The 'critical' and 'non-critical' dimensions of variation that delineate the categories of description are given and discussed. This chapter offers analysis of the interview data that constitute the categories of description through self-determination theory (SDT) and cognitive load theory (CLT) (Abeysekera & Dawson, 2015) and self-regulated learning (SRL) (Talbert, 2017).

4.2 Categories of Description

Four categories of description were derived from the interview transcripts. The categories represent significant aspects of variation in the meanings of the experiences described in the interviews. The categories are:

- A. Flipped learning is about having to take responsibility for your own learning
- B. Flipped learning is about engaging with others and taking their knowledge
- C. Flipped learning is about engaging with others and sharing and exchanging knowledge with them
- D. Flipped learning is about acquiring, building and enhancing academic and professional skills

It is typical in phenomenographic analysis for the categories of description to form a hierarchical structure (Marton, 1986). However, other less rigidly ordered examples of outcome spaces have been known (Åkerlind, 2012; Ekeblad, 1996; Morris, 2006). The relationship between the categories of description derived from this inquiry form a hierarchical structure with category D representing the most complex way of experiencing flipped learning, while categories A - C represent subgroups of the different 'parts and relationships within more inclusive or complex ways of seeing the phenomenon' (Marton & Booth, 1997, p.125). Thus, categories B - D include awareness of the differing aspects of the experience of flipped learning described in earlier categories however, this does not work in reverse. The connections and differences across these elements are the means through which the relationship between the categories is built. Thus, the outcome space for student's experiences of flipped learning is as per Figure 19.

Figure 19 illustrates that the categories of description from this research inquiry form a hierarchy of 'expanding awareness' (Åkerlind, 2005a, p.16). However, it is notable from a pedagogic point of view that individuals do not equate to or simply align with phenomenographic concepts, e.g. students will not be type As, or types Bs, etc. Therefore, from a pedagogic perspective the acquiring, building and enhancing academic and professional skills conceived to be taking place in the face-to-face sessions, described in category D, will be available to and beneficial for all students.

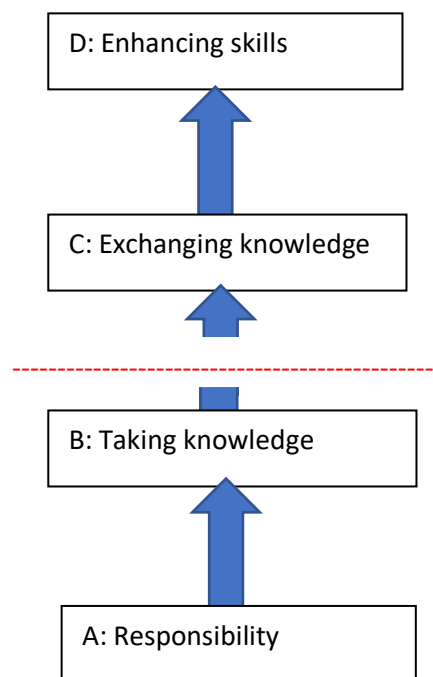


Figure 19: The outcome space for student experiences of flipped learning. The red dashed line indicates the epistemological difference between categories B and C.

It should be noted that the use of the term ‘skills’ in category D relates to Ashwin’s (2020) re- definition and re-conceptualisation of the term for higher education. Namely, that to be educationally meaningful the skills developed in university education must be knowledge based. The ‘skills’ referred to in this category mirror Ashwin’s conception as the quotes used to substantiate this category were taken from participants reflections on themselves or fellow students either working with or being related to children labelled with SEN. In doing so they described how engaging with course content influenced and altered those professional or personal relationships.

4.2.1 Category A. Flipped learning is about having to take responsibility for your own learning
Accounts that aligned with this category found adapting to the personal responsibility for learning inherent in flipped learning either different and not particularly worthwhile, or different but worthwhile. These positions were articulated in relation to the elements focused on by participants that relate to student responsibility in flipped learning; the need to prepare for class by learning on one’s own and the emphasis on group work in class. The difference between the two responses in this category related to the perceived quality of learning and the emotional result of doing the preparation required.

In this category, accounts that aligned with flipped learning as not particularly worthwhile, described being disorientated by the expectation that preparing for class would be done by engaging with a variety of multi-modal learning materials, *“I felt like that this year was a little bit, what’s the word to describe it, not difficult but just a little bit more strange in a way [...] I thought it was a little bit higgledy piggledy”* (6). Likewise, accounts expressed sometimes not being ready for the responsibility or effort of group learning, *“but sometimes, do you know what I mean, you do feel that you’re not ready for group work, you just, you want to be taught”* (3). In addition, there was a reticence about the quality of knowledge gained through this way of learning and a stated preference for the traditional, didactic form of learning *“I did really enjoy it. But I think sometimes it would be better if it was more of a... We got told a lot more, so there was loads of information in some lessons and we just wrote everything down”* (6). In equating learning with ‘being told’, accounts expressed the sense that flipped learning did not furnish students with as much knowledge as traditional didactic learning, *“I think a lot of us would have benefitted from having more information thrown at us in a way”* (6). Likewise, collaborative peer learning was not recognised as ‘proper’ learning and in-class time spent not listening to the ‘tutor as expert’ was positioned as wasted time as collaborative group learning was positioned as either being of poorer quality than in traditional didactic learning, *“I’d rather just sit there sometimes and listen to the tutor as well actually go through it, you know, in-depth”* (3) or was not recognised as learning, *“it is nice to have a lesson where you are just writing things down. So, then you feel like you’re learning in a way”* (6).

Contrary to the above, the accounts that aligned with flipped learning being different but worthwhile articulated a sense of a framework for their learning existing, *“it was a jigsaw piece that we were fitting together with all of the resources that were available”* (7). They also suggested that in line with being given responsibility, conceiving of learning as ‘being told’ was not appropriate for university level learning

“I think there’s a lot more responsibility onus on you. But at the end of the day, I’ve chosen to do this course so I shouldn’t expect to be spoonfed and said this is what you’re going to do. Do you know what I mean? I think it was good to have that responsibility and it meant that I could go into it as much as I wanted to [...] It’s a good responsibility. At the end of the day, I’m not an A level student anymore” (9).

The focus on the idea of having the responsibility for preparing for class was positioned as positive as it was experienced as converting the stress of university learning to use it for different ends, *“it’s really nice to know what’s happening next when you’re in that really stressful situation of uni anyway”* (10); *“there’s a pressure to it, but it’s not a pressure that’s stressful”* (10). Also, Independent Learning Tasks’s

(ILTs) were conceived as having more value, *“it makes the ILT have a purpose. You’ve got to know it before you go into class, or else your lesson’s messed up. So, the only person you’re letting down there is yourself”* (10). This purpose meant that the personal consequences of not preparing rendered the ILT’s mandatory,

“They’re [after class ILTs] definitely for your own good. You’re silly if you don’t do them. But because as a mature student you’ve got 101 things to do [...] You don’t seem to do it [not do your after class ILTs] because you don’t love it, and you’re not interested, and you don’t want to do well. You’ll just naturally think, ‘Well I’ve not got time for that [...] by doing it like this, I could see that stress all change, I saw it as, ok, no I’ve got to do it. I’ve got no choice’.” (10)

Emphasis was given to the positive aspects of this obligation as participants were prepared and aware of what the class would be about, *“But it just doesn’t give you a choice, you’ve got to do it. And that’s what I like about it. The fact that you’ve not got a choice”* (10); *“It’s been nice doing the ILTs first, knowing that they’re going to prepare you for the lesson. So, then you know what to expect in the lesson”* (10); *“It was good to be able to go into the sessions well prepared”* (9). Preparation was expressed as alleviating trepidation of the unknown and building confidence even if it was conceived as challenging, *“it did make me feel a bit more confident. Having that knowledge before I went in”* (9); *“it gave me that bit of confidence that, you know, I do actually know something before I come into class”* (3); *“It wasn’t like the anticipation of the unknown because you already had that on Moodle, it was there before you went into the lesson. So, it made me feel a lot more relaxed and reassured”* (2); *“But I think sometimes it is nice to feel like you are there to challenge yourself in a way with trying different techniques to learning [...] It definitely challenged me to try harder”* (6);

“because I knew what was coming because I’d done all the prep before it, I was looking forward to coming, do you know, because I knew what it was going to be about. And I knew I already had an idea myself of what it was about” (5).

Common to both responses in this category was the conception that preparation was made possible by the variety of multi-modal learning materials available to students. Participants recounted that these learning materials allowed them to incorporate class preparation into their everyday routines and even to multi-task, *“I used to just do it in bits as and when I had time really. So maybe like on my dinner at work I would watch a video or listen to PowerPoint”* (5), *“I can watch links and I can watch power points when I’m doing my ironing and stuff like that”* (9); *“I would do it while I was making the tea or, I don’t know, doing washing or something really boring like that”* (2).

Being able to revisit learning materials led to flipped learning being conceived as accessible, *“to be able to go back and re-watch the stuff was just really good ‘cause it sunk into me”* (2); *“I found it handy [...] You do forget things and it was a good reference to be able to go back”* (7); *“it was kind of a double lesson to me”* (3). Likewise, being able to choose the mode of presentation and personalise material supported the conception of flipped learning as accessible,

“Your audios [audio visual ppts in mp4 format] were really good just to listen to. I’d walk the dog and I’d be listening to your audios. You’re not just sitting, I can actually listen to your audios whilst I was in the garden or walking the dog” (9)

“I liked to listen to the power point [audio visual ppt in Mp4 format] rather than read it myself. I liked the videos. I set the video quicker than I can like getting it up and giving it a read. I feel like if I could listen to it, it will go in a bit better” (10).

The variety of learning materials were also viewed as breaking up the monotony and difficulty of reading academic texts while scaffolding learning, *“It’s [the videos] just more inviting isn’t it than the reading”* (10); *“So it can be a bit boring just having readings and nothing to watch or listen to. It just breaks it up a bit and supports what you’re reading”* (5);

“[By watching the videos] I think you’re kind of getting the knowledge of it in your own way before I’d do the reading. Because I’m a... academic reads are just... they’re quite difficult to read. So, with YouTube videos [tutor key ideas videos, TED talks and documentaries] you’re explaining it first. So that reading’s going to make more sense” (10)

“the readings were quite heavy sometimes. Because when you’ve got your job to do as well, and then you’ve got your stuff to do at home, it’s quite good to... I think if you look at the videos, you put it into perspective” (9).

The idea of not recognising learning was shared across both sets of accounts however it was expressed more positively by accounts that aligned with flipped learning being different but worthwhile, *“I think the way we were taught, it was like an automatic thing, where we just did and things were coming out”* (7); *“It’s just better the way it is because you learn more without knowing you’re learning more, if you know what I mean”* (10). In this category the focus of the accounts was on learning as an individual activity with preparation conceived of as beneficial for one’s own learning and with knowledge conceived as something held by the tutor and transmitted to each individual student whether participants were aware or not of whether or how this transmission was happening.

4.2.2 Discussion of Category A

In Category A adapting to the personal responsibility for learning inherent in flipped learning was conceived as either different and not particularly worthwhile, or different but worthwhile. These conceptions reflect students' enduring cultural belief that learning at university takes place through didactic instruction given in lectures (Gysbers et al., 2011). Thus, perceiving the personal responsibility for learning inherent in flipped learning either different and not particularly worthwhile, or different but worthwhile mirrors findings that students can feel less enthusiastic about flipped learning and feel less prepared in flipped learning than in traditional models of learning (Atteberry, 2103; Lape, et al, 2014; Masland & Gizdarska, 2018; Velde, 2021). The focus on evaluating the effort required for the pre-class preparation necessary for flipped learning to work indicates that students are aware that this is inherent in this model of learning (Akçayir & Akçayir, 2018). However, the differences in perceptions in this category represent that the responsibility for independent learning can be perceived as appropriate and confidence building or inappropriate and burdensome. The former was supported by perceptions of FL being accessible by being highly flexible to allow for self-paced personalised learning (Bergmann & Sams 2012, Bergmann & Sams 2013, Sams & Bergmann, 2013a; Talbert, 2017). While the latter, demonstrates that the differences in perception hinge on the perceived quality of learning provided in flipped learning and indeed, if 'learning' can be perceived as taking place at all. None-the-less, across both strands of this category FL is perceived as accessible and as providing multiple-access points to key concepts that helps to scaffold and support learning (Bergmann & Sams 2012, Bergmann & Sams 2013, Sams & Bergmann, 2013a; Lage, Platt & Treglia, 2000; Talbert, 2017). This translated into the idea of 'productive pressure' being created through a perceived obligation to complete the before class ILTs, that in a traditional structure would have been given as after class tasks that would have been superseded by other employment, domestic or familial demands on students' time. Thus, this perception of FL converting stress associated with being at university into the productive pressure of being obligated to engage with learning, demonstrates how FL can lead to increased student engagement (Talbert, 2017).

In relation to SDT (Abeysekera & Dawson, 2015) in this category the perception of a positively enforced engagement with ILTs may still relate to motivating students to self-regulate their learning behaviour with recourse to structured extrinsic motivations. This is because while the loss or gain of grades is not immediate, none-the-less, completion of these tasks is conceived as for the student's "own good" and "to do well". However, the response that demonstrates the positive obligation of pre-class preparation reflects that mature students who make significant sacrifices to attend a university via FE, may already be positioned further along the motivation spectrum than those who attend university in early adulthood. This is because in the statement made by participant 10 the extrinsic motivation

signified by the phrase “doing well” comes at the end of a list of phrases that signal intrinsic motivation, namely “loving it” and “being interested in it”. While it is not possible to draw generalisable conclusions from this phrase alone, none-the-less the ordering of this phrase freely articulated by the participant does offer a glimpse into an aspect of SDT amongst mature students accessing HE through FE that may make an interesting topic for further study.

In terms of CLT (Abeysekera & Dawson, 2015), in this category it appears that FL may be perceived as causing both extraneous and germane load. Germane load exists in the learning objects that give key ideas and concepts learning context. These learning objects will be the type to offer explanations and ways of understanding ideas and concepts contained in academic reading thus helping learners to form schemas to aid their learning. Thus, they are “jigsaw pieces” that are part of a wider whole. However, the disorientation expressed in the use of the phrase “higgledy piggledy” indicates that flipped learning may also be experienced as adding extraneous cognitive load precisely due to the range and variety of learning objects on offer.

Another insight in this category relates to the particularity of mature students accessing HE through FE. Namely, participant 3 who expresses that sometimes they are not ready for group work and would prefer to simply “be taught”. The idea that the effort of group work could be undesirable when it would require less exertion to be taught in a more traditional more passive method is understandable when the particularities of the circumstances of research participants are taken into account. Typically, as well as being in full-time employment students accessing HE through this route often have care giving responsibilities too. Furthermore, within the locale where the research was conducted it is typical of cohorts to be in demanding but under-valued and under-paid roles. Indeed, it is often this situation and the promise of better career prospects that motivates them to return to education to obtain a degree. However, for students who have often already done at least an eight-hour shift at work, on top of attending to their caring responsibilities before this, it is understandable that they may wish to actually be passive and relax in the classroom before being asked to participate in group work. This point reflects the findings of McTaggart (2016 p.86), who found that mature students accessing HE through FE found ‘an institutional habitus’ that did not do enough to change to support the learning needs of such students.

In relation to SRL, category A uncovers an assumption built into how many practitioners create FL, namely, that all learners should already have the tools to understand and integrate a FL approach into their personal and preferred ways of learning. This is the assumption that students should be able to decide for themselves if their understanding is adequate and if it is found wanting, they are able to re-watch material whilst trying something different to understand it. However, this assumption is

underpinned by the idea that all students possess self-regulating learning skills that enable them to exercise strategic knowledge, knowledge about cognitive tasks, and self-knowledge (Nilson, 2013). However, as discussed above, the perception that FL was different but not worthwhile was grounded in the traditional conception of university learning that consists of knowledge that is held by tutors being imparted to students via didactic methods. This passive understanding of learning and the relinquishment of responsibility for learning it reflects, is of course fundamentally incompatible with a FL approach and as explored above may lead to the structure and array of learning objects in FL being experienced as extraneous cognitive load. However, as with removing the perception of extraneous cognitive load, explaining the purpose and process of FL may help to prepare students to allow them to be more proactive and able to take the initiative to have some control over different aspects of learning (Talbert, 2017). Indeed, this explanation, the validation of all learning and the assurance of not having to get everything “100% right” may be drawn from the student perceptions and insights offered in categories B, C and D.

4.2.3 Category B. Flipped learning is about engaging with others and taking their knowledge

Category B shares the concern with preparation shown in Category A. However, awareness in this category is expanded beyond the participants’ selves to include an awareness that preparation is done in the expectation that students will contribute to class discussions. In this category the confidence referred to in category A is directly linked to being able to contribute in class,

“I wasn’t coming in not knowing what I was going to be taught today kind of thing, because I know I already knew what it was going to be. And I’d done a bit of the learning myself [...] I feel more confident like I can contribute to the lesson, and have a base for it” (5);

“And I think that knowing what I’m going to say beforehand has given me a little bit of confidence. Because as I said, I’m really worried of looking stupid on front of people and saying the wrong thing. I like to have something there that I know what I’m going to say” (8)

Thus, a key distinction in this category is that rather than learning being focused on the self (as in Category A) participants recognised having a part to play in their peers’ learning; *“it was sort of like an unwritten rule really that you can’t not contribute, it’s not like there’s not different ways of you can contribute” (2)*. None the less it was recognised that this did not always happen. However, this was positioned as not being the student’s fault *“I think some people did and I don’t think it was ever sort of any kind of malintent, they weren’t sort of naughty children type thing, [...] they genuinely work fulltime, had families” (4)*. The focus on the expectation of contribution to group work led to the idea of the accessibility of pre-class learning expressed in category A being extended to descriptions of in-class learning, *“I think it goes in a lot better than if you’re just sat a desk and listening” (1); “I think it*

met every single one of our needs in different ways. I don't think anybody left without thinking, oh do you know what, I've actually not learnt something today" (7). The idea of engagement stressed in this category led to the idea of flipped learning being enjoyable, *"You know that you're not going to [be] bored"* (2) *"So it can be a bit boring just having readings and nothing to watch or listen to. It just breaks it up a bit"* (5); *"It wasn't boring, it wasn't dull because you weren't learning something"* (9); *"Yeh I remember doing the fun things like designing things"* (5); *"It just made me feel like it was more of an enriched experience"* (2);

"the actual activities we've done have been really nice, like videos, or a read, it's been quite full of things rather than it just constantly being a read, analysing and criticising. It's been quite fun" (10);

"Thoroughly enjoyed it and it was all participatory from everybody really, and you learnt in that environment I think rather than just being kind of – I don't know, given things to do and then told, you know... When other people are involved I find it a lot better" (1).

In this category collaboration with fellow students is given more credence as fellow students are perceived as creators of 'quality' knowledge. Thus, the knowledge that others 'hold' is worth 'taking', *"Magpie-ing everyone's ideas. Just magpie-ing from, you know..."* (3) or 'consuming', *"it's good in a way because you get the engagement of the different ideas with the students in the class and your teacher. So, you're feeding off ideas"* (6). Participant accounts in this category positioned their learning as of a lesser quality to others' and therefore the emphasis on the conception of learning was as something that the group does but that is of benefit to the individual, *"I think the other girls contributed a lot more than I did because, you know, having a fulltime job and like I said I do find studying and academic work really – it's quite hard for me to kind of get the gist of everything"* (3). The valuing of other's knowledge also created a shift in the notion of 'tutor as expert' and a recognition of learning as participatory, *"and it wasn't just you [the tutor] who was talking at the front of the classroom"* (5); *"And also it did give you an opportunity that if you weren't so sure of something, then you could go in, and I felt like you could ask [the tutor], and she would clear it, or someone would have a point of view"* (9).

While participants' own knowledge may be positioned as inferior in the exchange of knowledge inherent in collaborative group learning, none-the-less, the need to have knowledge prepared and to contribute it was articulated; *"Because you kind of get the pressure to do them, because if you don't, you're letting your class down as well because you're doing a lot of group discussions [...] you're letting your group down as well, that you work with [...]"* So it's a pressure of like almost like a teamwork kind

of thing as well" (10) Thus, this category extends the notion of preparation from category A to propose that the purpose of preparation is to facilitate engagement. It also shares the idea expressed in category A that knowledge gained through one's own independent learning is of inferior quality to knowledge held by the tutor. However, this category also extends this idea to situate participants' own knowledge as inferior to knowledge held by other students. This category shares with category A the notion of 'knowledge as information' but it recognises the presence and import of peers in the process of learning. Thus, this category focuses on student contribution and engagement as necessary in flipped learning as *"it gets you engaged with how the lessons turn out"* (6) but deems different contributor's knowledge to be of differing value.

4.2.4 Discussion of Category B

Awareness in category B is expanded beyond the participants' selves to include an awareness that preparation is done in the expectation that students will contribute to class discussions. Responsibility to meet this expectation is linked to students' obligation to others to generate ideas to discuss in class. This obligation, referred to as an "unwritten rule", is underpinned by access to a range and variety of learning objects that made it possible for learners to engage in learning. This in turn led to the classroom group space being perceived as more accessible due to the use of active learning (Baepler, Walker & Driessen, 2014; Li et al., 2021; Talbert, 2017).

In category B, the confidence referred to in category A, built through removing the trepidation associated with not knowing what class content would be and having built some suitable knowledge independently, translated as putting students in a position to be able to contribute to class. In this category, this confidence coupled with the engagement fostered by FL's use of active learning led to participants perceiving that learning in FL was not boring and indeed could be enjoyable and "fun". The articulation of this conception makes it possible to conclude that activities used were suitably creative (Talbert, 2017).

Preparation being necessary to facilitate engagement was linked to accessibility, which was in turn aligned with active learning being used to support participation and collaboration which promoted the idea of learning being like working in a team. FL's focus on student contributions and engagement fostered emotional investment in the learning produced in the lesson. Furthermore, as other students produce 'quality' knowledge worth taking, the tutor becomes repositioned as part of the "team". As such, the conception of the role of the tutor changes from the 'sage on the stage to the guide on the side' (King, 1993).

The above conceptions reflect Talbert's (2017, p.50) assertion that in Flipped Learning:

group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter.

This category also offers deeper insight into students either recognising or not recognising when learning is taking place or what learning actually is. While in category A students who expressed that FL was different and not particularly worthwhile did not recognise collaborative peer learning as 'proper' learning, in this category students expressed the idea that creative activities could still be conceived as "dull" if the creativity was not used to support learning. Thus, the phrase, *"it wasn't dull because you weren't learning something"* indicates students are able to discern between something being fun for the sake of it and something being fun whilst also being substantive in supporting and developing their learning. Again, while it is not possible to draw generalisable conclusions from this phrase alone, it does indicate that for learning to be conceived as "fun" it must also be aligned to learning. Thus, Talbert's (2017) emphasis on structured learning activities being foundational for restructured learning to qualify as FL is supported by this response.

Notably, in this category, while other students' knowledge is positioned as valuable and worth taking, students render their own knowledge as inferior. This signals a lack of trust in or appreciation of the process of collaborative learning and everyone's rightful place within it. Therefore, while descriptions aligning with the category may acknowledge students' recognition of different academic abilities in any given class, it signifies an esteem issue for some learners that should be addressed.

In relation to SDT, the perception of learning activities as "fun" indicates that they were stimulating and that participants experienced inherent satisfaction from them. This in turn would bolster the building of intrinsic active commitment to learning via intrinsic motivation (Abeysekera & Dawson, 2015). Supporting this move towards the presence of intrinsic motivation, the autonomy to make choices and security to explore self-directed learning in small group work with peers is present in this category. However, the conception of 'taking' knowledge from others may indicate lesser feelings of competence with regards to feeling progress or accomplishment derived from one's own efforts at learning. Likewise, this idea of 'taking knowledge' would have a correlative effect on feelings of relatedness and belonging to, and being an active participant in, a learning community. This is because participation restricted to 'taking' limits the type of participation one is experiencing. None-the-less, the idea of "teamwork" does shift focus to 'relatedness' and being part of a learning community albeit that different positions are taken in that team.

In terms of CLT, in this category FL is experienced as producing germane load as the range and variety of learning objects and learning experiences therein are experienced as "jigsaw pieces" that belong to

a bigger whole. While the potential ambivalence of these “pieces” not fitting or being “higgledy-piggledy” was removed. Also, alternative explanations and schema were noted as deriving from fellow students’ experiences. Thus, in this category it is acknowledged that there are different types of “jigsaw pieces”, ones produced by the tutors and others – of equal value – produced by students. Therefore, germane load was noted as being produced through participatory and collaborative learning.

In relation to SRL, the idea of “taking” knowledge in this category is significant as it limits the idea of learning being proactive and something that students do for themselves. The conception of “taking” leaves learning being a reactionary event to something others do (in this case not only the tutor but also other students). However, notably, in this category it is not only the tutor who is being reacted to. Therefore, while not complete, this category does signal an important step in students taking initiative and having some control over their learning as they realise that peer knowledge, not just tutor knowledge, has worth in helping them to reach their desired goals. In doing so, this recognition aligns SRL with SDT to demonstrate the communal dimension in FL with regard to students overtly recognising that they are part of a learning community engaged in the “teamwork” of participatory and collaborative learning.

While students move further towards fully integrated intrinsic learning motivation in category B a key issue remains that students do not fully appreciate their necessary place in the collaborative learning practice that FL depends on. However, as with category A, the understanding and assurance of every student’s place and part in collaborative learning may be drawn from students’ conceptions and insights offered in categories C and D.

4.2.5 Category C. Flipped learning is about engaging with others and sharing and exchanging knowledge with them

As distinct from the previous categories, in this category participants positioned the knowledge accrued through independent learning as having intrinsic worth, even if the knowledge produced was incorrect. Thus, accounts aligned with this category positioned the act of learning as valuable independent of the quality of the knowledge gained, *“Even if it’s not 100% right, I’m fine if I’ve had the right guidelines”* (8). They expressed that they would either have their knowledge corrected or validated in class but that the “pressure” to get it right on their own was removed *“you can get validation there for if your independent learning has been successful for yourself or not. It’s no pressure, because you’re going to learn about it in class anyway”* (10). Likewise, this conception was expressed as there being “no right and no wrong”, *“You get to think about your opinions, share your opinions, your experience, and have people learn from that as well. So, there wasn’t no right and wrong*

so we weren't picked on where, that's not right" (10). This validation of all learning along with the focus on discussion in class meant that "it didn't make you feel uncomfortable about asking the questions" (6) as questions were conceived as integral to collaborative discussion, "And we shared experiences. We shared ideas. There was a lot of questions asked. A lot of questions answered" (7).

Unlike in previous categories, participants expressed that everyone's contributions were conceived of as part of learning, *"I know some people didn't really get it in the way that some of us did, but as long as you enjoy it, you were able to have a good discussion, I think" (9). This led to a more comfortable learning environment precisely because, in keeping with the ideas of personalisation and accessibility expressed in categories A and B, everyone had been given means to create a contribution and could participate in discussion, "it was more of a, more like a homely environment, because everybody can engage" (8).*

The preparation allowing for contribution and participation was described as elongating the lesson to allow for deeper learning, *"the power points and the links to videos or the links to other readings yeh, you're getting a lot more than just being told this is what it is"(9); "you kind of like go into depth about different aspects of it and then it kind of gives you a better understanding if you will rather than just reading it off a sheet" (1); "it kind of just boosted you in that it's just like a jumpstart to the lesson" (3). Linked to this idea was the idea of making better use of limited class time, "I think that was better than going in blind and then trying to understand the concepts" (9); "if you had to start from scratch and had to explain what that is to us and everything, it just wastes a lot of time in the face to face session doesn't it?" (5); "You wouldn't have time to understand it in that three hours. I mean, three hours is such a short time [...] if you were given a reason [definition of a concept] in the session, that's your session gone. And that's a waste of time" (9). The last quotation also makes the important distinction of knowledge as understanding whereas in previous categories knowledge is conceived as information. This aspect of knowledge as understanding was also expressed as the deepening of understanding that occurs as a result of the different use of time in this mode of learning, "But if we obviously watch the videos, and things like that before that explains it to us, we do all that before we come in, so you can, say like, start teaching us more rather than the basics of what it actually is, we already know that then before we come in" (5).*

Validating all learning led to the idea of everyone learning together *"I think doing a little bit on your own and then bringing it together it sort of suits everybody, it gets everybody thinking, gets everybody sort of doing a bit of both independent and collaborative working" (4). Likewise, having everyone's contributions conceived as valid changed the idea of 'taking or consuming' expressed in category B to 'collaboration and building', "we would have a class discussion and people would put their ideas in and*

we'd sort of bounce back ideas off each other" (2); "it was kind of like you bounce off each other and I think you learn quite a lot" (1). This focus on collaboration and discussion rendered peers as providers of feedback "it's been good to get different feedback from other people from their input as well" (8). This in turn altered the role of the tutor to a participant in learning and exchange of knowledge, "I felt that I was kind of interacting with the tutor" (3).

Having real world context and examples for concepts was also noted in this category, *"to me, that's what put it into perspective, of what it's about [videos]" (8); "So it's nice to be able to look at, access real stuff, so that you know, like especially some of the videos, some documentaries that we watched and stuff" (9). The fact that many students had life experiences or professional roles on which they drew to make sense of concepts was conceived as producing knowledge that was of equivalent value to the tutor's knowledge, "sometimes it was hard to just understand the underlying concept and how you would apply it to normal life. But then when everybody got involved with sharing experiences and being able to apply it to those experiences, [it] made more sense" (7).*

Category C reflects the ideas of personalisation and accessibility expressed in categories A and B and extends the notion of collaboration expressed in category B by validating all input as part of the learning process. It shares the idea of a framework for learning expressed in category B however, the individual's identification as part of a group with responsibilities to that group is emphasised and the quality of knowledge and feedback offered by others is noted. This expands the idea of learning as participatory expressed in category B to include the tutor as a participant in learning and the exchange of knowledge. Knowledge is conceived as understanding and the focus of application for that knowledge is widened to include the outside or professional world.

4.2.6 Discussion of Category C

As distinct from the previous categories, in this category participants positioned the knowledge accrued through independent learning as having worth, even if the knowledge produced was incorrect. Thus, it marks an epistemological shift in the understanding of what learning and knowledge are. This shift is denoted in the outcome space by a dotted line (Figure 19). The category contains the idea that learning is not about simply accruing "correct" knowledge, but is a process to engage with. Thus, in this category, the potential for FL to help students develop the skill of learning itself (Talbert, 2017) forms part of the conception participants had of FL.

In this category it was recognised that FL supported the removal of the pressure to attain "correct" knowledge by oneself as the structure of learning allowed any errors in independent learning to be corrected. Furthermore, the in-class focus of FL on participatory and collaborative learning and

discussion led to there being a sense that sharing one's opinions, experiences and perspectives was more important than giving correct answers. This led to the idea that all students were conceived as valued participants in the "discussion" that characterised learning. Questions were also described as being an important part of this type of learning. Likewise, the pre-class learning activities were recognised as creating the means for everyone to contribute and participate. Through these means the learning environment that was created was described as supportive and comfortable in that contributions from everyone were not only welcomed but expected, irrespective of their "correctness". Thus the 'intentional approach to getting all students involved in dynamic, creative activities that support learning' (Talbert, 2017, p.59) was part of the conception of FL in this category.

The variety and range of pre-class preparation activities were seen as enriching the learning process and increasing the quality of knowledge students were exposed to. In turn, this was recognised as supporting learner engagement with subject content, whilst also allowing for more judicious use of in-class contact time. Thus, conceptions in this category reflect an awareness of how the deliberate re-structuring of 'time, space and activity' (Talbert, 2017, p.56) are fundamental to making FL work. In this category knowledge was equated with understanding, rather than information gathering. Whilst the process of understanding – ergo learning – was conceived as a process. FL was conceived as deliberately using the group space to allow students to examine their understanding and correct any misunderstandings. This removed the pressure to be correct which made for a more welcoming environment. Thus, FL was conceived as creating a direct relationship between 'cognitive difficulty and access to help' (Talbert, 2017, p.33). However, this 'help' was not conceived as having to come solely from the tutor as participants recognised the place of 'peer interaction [in] complex problem solving' (Unal & Unal, 2017, p.146). Due to the emphasis on peer exchange and the removal of the necessity of accuracy, in this category engaging in the process of learning i.e. learning to learn, was positioned as more important than obtaining a "correct" answer.

Learning was also conceived as communal experience where everyone contributed what they had learned independently, to build a collective understanding. Within this shared learning experience peers were perceived as capable and reliable providers of help, support and feedback. Thus, the collaborative learning environment repositioned the tutor as a participant in the learning process, rather than the sole source of valid knowledge. Therefore, in this category the tutor role changes to that of facilitator rather than teacher (see Talbert, 2017, p.36).

Being able to engage with real world examples through pre-class videos or newspaper opinion pieces strengthened the relevance of subject content. Whilst mature students accessing HE in FE meant students' ability to call upon real world examples from their professional or personal lives rendered

their contributions as of equivalent value to the tutor's knowledge. This was because such contributions also provided a range of perspectives from which to understand abstract concepts.

In relation to SDT (Abeysekera & Dawson, 2015), in this category students' need for autonomy, competence, security and relatedness are expressed as having been met as they are able to make choices, experience progress and accomplishment in an environment described as "homely" reflecting connotations of safety and belonging. Furthermore, students clearly position themselves and their peers as active participants in learning, conceived of as a process. The inherent satisfaction derived from learning activities described as being "fun" in Category B that led to "an enriched experience", is in this category, explicitly linked to deeper learning and deepening understanding. Thus, this category achieves intrinsic motivation as integrated regulation becomes intrinsically motivated i.e. there is an active commitment to learning. Furthermore, students' integration of course values as their own - the pinnacle of SDT - was aptly expressed by one participant who offered the following reflection on their experience of flipped learning that incorporated this category's focus on building and collaborating and valuing the knowledge of peers:

"And it's underlies SEN as a whole, it allows you to think, you know what, even if we don't add labels as students, probably there are. But even we are all unique and we are all different. And how [we] apply our own knowledge to concepts are different aren't they because we've got different ideas. And it was just an inspiration really. It was an aide as well to do essays, to take those ideas away and try to build upon it. And just think, oh this person thought of it like this. So, see where they were coming from. It just gave you that thinking space as well to extend on your thoughts" (7).

Thus, in this category, communal contributions to and exchange of knowledge are perceived as part of the learning process.

In terms of CLT (Abeyserka & Dawson, 2015), this category remains the same as for category B as FL is experienced as producing germane load as the range and variety of learning objects and learning experiences therein are experienced as "jigsaw pieces" that belong to a bigger whole. Likewise, further explanations and schema were noted as deriving from fellow students' experiences as students were positioned as providing alternative frameworks through which to understand course concepts. Again, in this category it is acknowledged that there are different types of "jigsaw pieces" of equal value; those produced by tutors and those produced by students. Therefore, germane load was noted as being produced through participatory and collaborative learning.

In relation to SRL (Talbert, 2017) learning in this category is something that students do for themselves that gives them a “boost” and a “jumpstart to the lesson”. This reflects how students take the initiative and have some control over their learning with their desired goal being to contribute in class, rather than having the “right” answer. They note that bringing this independent learning to class allows them to share opinions, ideas and experiences that others learn from, as they learn from others. Therefore, in this category learning is not only something that students do for themselves but is also part of a shared experience. Thus, the knowledge being created is positioned as communal and belonging to all students.

This category represents growing confidence in flipped learning and ease with self-taught learning and represents the achievement of intrinsic motivation as active commitment to learning. None-the-less, student accounts of experiences in this category fall short of students feeling totally in control of their learning in a way that would see them able to advance their learning outside of a pre-set and potentially limiting framework or ‘jigsaw’. Thus, while in this category the role of the tutor shifts to being a participant in learning and exchange in knowledge, student accounts retain the notion of the tutor having some seniority due to their position and breadth of knowledge. Therefore, while there was no pressure for right answers, none-the-less, the tutor was still guiding learning. Thus, it is not until category D that there is a re-positioning of both the tutor role and student role that renders students as being autonomous co-constructors of knowledge.

4.2.7 Category D. Flipped learning is about acquiring, building and enhancing academic and professional skills

What was distinct in this category was the focus on the development of skills for future learning through focusing on the element of independent learning and the cultivation of research curiosity. In this category, participants perceived the purpose of flipped learning to be:

“I think it’s to sort of establish an element of independent learning and to then ensure the understanding of that independent learning” (4); “I think it’s probably just giving responsibility rather than learning and just making us develop tools to be able to find stuff out for ourselves” (5); “I think it’s just to bring independence to your learning I think. And building up on those skills to learn independently” (10); “To be prepared to have that opportunity to do your own research and have a look beforehand, and get you prepared for the kinds of research you’ll probably have to do in the third year really” (9); “It just encourages you to do research and maybe look at something else that interests you about that” (10).

The concept of independence was also expressed as feeling more in control and autonomous with a meta-awareness of how learning occurs *“I think, to me, I was in charge”* (7); *“do you know what I’ve even found, I don’t know if you’ll like it, it’s probably just feels more autonomy in it, like knowing how I’m learning really”* (5).

Also distinct in this category was knowledge being linked to professional practice,

“I think the purpose is for you to have your own personal ideas but also to reflect upon those ideas as well. Have a concept. Have a deeper understanding of the concept. Which can be transferred into practice or into essays” (8).

As this quotation indicates, while this category shared the focus on the development of subject knowledge and deepening learning expressed in category C, it extends the awareness of the fact that many students had professional roles on which they drew to make sense of concepts. This expansion meant that participants were also aware that their own professional knowledge was being developed in discussions when peers were sharing their experiences,

“because people work in cracking environments as well but different environments, some might work with special needs children [...] Some people don’t even work in SEN but have different – people at home that they have in the family [...] I work in a cracking environment but somebody else might not. And, you know, I can pass on my views and then they can pass on their views from their experience of different things” (1)

“we’re working in different SEN areas in our class. So that makes a massive difference because everybody has different experiences. We weren’t coming across the same things were we. So that was another aspect to realise that, you know what, different work fields make a difference as well” (7).

The focus in this category on the professional status, knowledge and experience held by students, in conjunction with the emphasis on independent research worked to position the tutor and students as co-creators and co-constructors of knowledge,

“[in] that [flipped learning] environment you’re kind of like, you can contribute and say, ‘Well I think this,’ and somebody else will think that and, you know, everybody has different ideas and opinions and it might be things that you’ve not thought of or looked at it from a different

angle, rather than just going off what the actual lecturer, their views are. People have different view. Yeah, because the lecturer might not have thought of some things where she said, 'Yeah, I didn't think about that,' or, 'Yeah,' you know? Which was good that the lecturer didn't just think that they knew everything and, you know?" (1).

The metaphor associated with this category is 'stepping stones' which was used to describe getting to the destination of 100% understanding by using the various learning objects to construct one's own journey:

"I mean when I worked, I tend to do it in the order of I'll watch the audio-visual presentation, then I do the readings, then I do the questions and then I do any other activities you might have like suggested for additional learning. So, I do it in that order, and I find that when I watch that initial audio-visual presentation, particularly if it's something I've not heard of I think, 'I haven't got a clue, I'm not going to be able to do this,' and then I read the text and think, 'Well I understood about 10% of that.' Then I go to the questions and re-read the text with the questions and think, 'Hang on a minute, now I get it, now you're asking me to think about it in that way, I get it, right, yes, so now I understand about 60%. And then I'll do whatever other activities there are, 'Yeah,' and then I come into the lesson and [the tutor] will explain it or one of my classmates will say, 'Well I got this...' And I think, 'Yeah, I'm 90% there now.' Kind of, you start off with this tiny little stepping stone and you're like building on it with each little bit of extra ways of learning. So there seems to be lots of different ways of learning that one thing, and I feel like with the ILTs and then the class, and then the class activities kind of gets all the way around for all us that learn in different ways" (4).

Again, this excerpt positions tutor and classmate explanations as of equal value reinforcing the idea of the tutor and students as co-creators and co-constructors of knowledge. It also positions FL as accessible through the ability to personalise one's learning journey.

The focus on independent learning and cultivation of intellectual curiosity expressed in this category brought the primary focus of the category back onto the individual themselves but with an awareness of the part all others play in group learning.

4.2.8 Discussion of Category D

In category D students expressed that the responsibility of independent learning developed their research skills and curiosity to allow them to be in control of their learning. Indeed, that this level of

autonomy and power was understood as antithetical to the expectations of traditional learning led the participant to introduce the idea using a cautionary caveat – “I don’t know if you’ll like it” - before expressing the idea. Likewise, the participant goes on to suggest that putting students into a position where they understand how they learn is also incompatible with expectations of traditional learning. Thus, putting students “in charge” is done through revealing to them how they learn thereby giving them control over their own learning while simultaneously removing that power and control from their tutor.

This autonomy and control appeared to remove participants from a passive student role repositioning them to link their learning with their professional personas. In this way they articulated that they would look to apply their knowledge outside of academia. Likewise, having made this association, students were able to recognise that the participatory focus of FL allowed students to draw upon and share their personal and professional experiences. This in turn allowed the academic space to function as a forum to reflect upon professional practice with a view to enhancing it.

The experience of autonomy and control aligned with their professional roles worked to render the tutor and students as equal contributors to learning as co-constructors of knowledge. This is a relationship that Talbert (2017, p.236) likens to ‘that of a client and a consultant where the client seeks the help of the consultant and the two co-create something of equal value to each: the client’s education’. However, given the dual or triple positioning of participants in this research as mature students, professionals, parents and carers, it is notable that the knowledge that is communally co-created can be applied beyond education to professional practice. Moreover, this knowledge can be incorporated not only into students’ professional practice but also the tutor’s professional practice. Thus, this underscores the symbiotic benefits of FL in facilitating co-creation of learning with mature students.

The idea that learning would be applied outside of the classroom either in further self-directed independent learning or taken into professional practice created the sense of a future focused autonomy. This autonomy positioned students as harnessing their newly developed skills and knowledge not only for themselves but also for other people in their futures. These others could be unknown – future clients, colleagues, peers or children – or known others from this list at a future time.

This autonomy infused future was reflected by the use of the metaphor “stepping stones”. With connotations of support and safe-passage to a destination “stepping stones” was used to describe the journey to 100% understanding. However, it was recognised as a journey with many possible paths. Furthermore, the journey metaphor suggests an open and self-directed future in a way “jigsaw”

cannot, as the path that the “stepping stones” are part of alludes to different paths to be taken and further journeys to be made.

In their elucidation of SDT, Abeysekera and Dawson (2015, p. 11) note that as an alternative to compelling students to self-regulate their learning in FL through the use of extrinsic motivation such as attaching marks to pre-class learning activities or class attendance, ‘SDT advocates the creation of learning environments that encourage students to integrate values associated with a given course as their own’. While this integration of course values is recognised and articulated in category C, it is recognised, articulated and *applied* in category D as students expand their independent learning to be self-directed learning in pursuit of future goals. This aspect of futurity is not something overtly discussed by Abeysekera and Dawson (2015) in their application of Deci and Ryan’s work but perhaps having a future focus is a logical outcome for intrinsically motivated students who are actively committed to their learning.

In terms of CLT, the aim of creating germane load for students has already been reached through categories B and C. Albeit that an epistemological shift occurs between these categories that renders fellow students as educators in category C. However, in category D the metaphor used to describe FL changes to “stepping stones” which arguably connotes a future focused autonomy. Indeed, it may be that this future focused autonomy is made possible due to presence and effectiveness of multiple sources of different schema – from the tutor and different peers - through which to understand course content.

Again, in respect of SRL, Talbert’s (2017) discussion of this framework does not explicitly mention future learning. Like Abeysekera and Dawson, (2015) Talbert’s discussion reads as focused on immediate learning. However, being goal orientated SRL notes that students’ thoughts, feelings and actions are focused on their desired goals which, by definition, may not be limited to immediate learning goals. Therefore, the quotes in this category indicate that this instance of FL helped students to achieve the ‘flipped learning-specific [...] goal [of...] learning how to learn’ (Talbert, 2017, p.140). Furthermore, they have done so by simultaneously achieving the other two of Fink’s (2003) significant learning goals selected by Talbert as pertinent to FL; ‘caring’ and ‘human dimension’. However, as mature students with parenting and caring responsibilities, professional roles and significant life experience they have also achieved these in relation to another of Fink’s (2003) significant learning goals; ‘integration’. Namely, connecting ideas, people and realms of life. Moreover, they have done so in their professional realm of life as they recognise that as well as developing their academic skills they are developing their professional knowledge and practice.

4.2.9 Conclusion to the discussion of categories of description

Overall, the different conceptions of flipped learning presented in the categories of description reflect its status as a ‘boundary object’ that can see differences and contradictions between specific conceptions of the idea (Dziuban et al, 2018). This aligns with the phenomenographic understanding that an individual’s conceptions of an experience may contain contradictions. This is aptly illustrated in interview 6, where the participant articulated reticence about their experience of flipped learning terming it ‘higgledy piggledy’ (6) while also expressing appreciation for the personal challenge of learning in different ways *‘But I think sometimes it is nice to feel like you are there to challenge yourself in a way with trying different techniques to learning [...] It definitely challenged me to try harder’* (6). The quotes were used to illustrate the opposing aspects of category A, with the former quote used as an illustration of the negative response to having to take responsibility for your own learning inherent in the flipped learning approach and the latter used as an illustration of the positive response to this responsibility. Thus, while it is unorthodox to include indicators of individual respondents in phenomenographic analysis and results, doing so has allowed the demonstration of an important tenet of understanding in phenomenography; that individuals can hold competing and contradictory conceptions of an experience of a phenomenon or situation.

Also, as can be seen from the application of the integration of course values continuum in self-determination theory (Figure 5) done here, the continuum from extrinsic motivation to active motivation mirrors the continuum represented in the ascending categories of description. However, there is one important caveat to be considered relating to the educational environment of this research inquiry. Mature students accessing learning through outreach programmes such as the one where this research took place would not readily be given to unwillingness or lack of intention to engage in a given learning activity. This is because they make significant commitments and personal sacrifices (such as having any free time, having to take time away from being with their children and deliberately increasing their stress levels due to studying while having a combination of full-time work, family and caring responsibilities) to have access to higher education and the chance of obtaining a degree with honours. None-the-less, people do choose not to engage with a learning activity, not because they do not want to, but because they sometimes prioritise another competing demand on their time. However, it is clear from the interview data that they do so in the knowledge they can do it later or that it has been ‘outsourced’ to another member of their group. Further discussion of this point and its implications are given in the next chapter.

4.3 The unit of experience

As shown in Marton and Booth’s (1997, p. 92) schematic delineating the structure of awareness of learning, learning experiences comprised of the ‘How’ and ‘What’ of learning are themselves further

comprised of structural and referential aspects. This forms the unit of experience, as illustrated in Figure 20. Structural aspects form the structure of the experience and ‘focus on the changes in what is in the foreground and background of the accounts’ (Ashwin, et al., 2016, pp. 967-968) of the experience given in the interviews. Structural aspects are common to all the categories of description for a phenomenon while the referential aspects form the meaning of the experience and show variation across the structural aspects. Thus, the referential aspects included in a category of description indicate the relationship between what is in focus for the learner while other aspects recede to the background. The structural and referential aspects of student’s experiences of flipped learning are as follows:

Structural Aspects	Referential Aspects			
	Not being given knowledge	Engaging and taking knowledge	Engaging and exchanging knowledge	Building and enhancing skills
Temporal Orientation				
Past- Present	A. Flipped Learning is about not being given knowledge by the tutor			
Present		B. FL is about engaging with others and taking their knowledge	C. FL is about engaging with others and sharing and exchanging knowledge with them	
Present-Future				D. FL is about acquiring and practicing academic and professional skills

Figure 20: The unit of experience for flipped learning. The dashed red line indicates the epistemological difference between categories B and C.

The temporal orientation selected for focus in the unit of experience was derived from consideration of the phrases and metaphors used to describe participants’ perceptions of FL summarised in the dimension of variation table below; namely, higgledy-piggledy, jigsaw pieces and stepping stones.

4.4 Dimensions of variation

Each category of description was described in relation to the dimensions of variation discovered in the data set. These dimensions are given in Table 4.

Dimensions of Variation	A: Having to take responsibility for your learning	B: Engaging and taking knowledge	C: Engaging and exchanging knowledge	D: Building and enhancing academic and professional skills
Learning benefits the	Individual	Individual & Group	Individual & Group	Individual } And
Responsibility for learning	Self	Self & Others	Self & Others	Self } Future
Motivation to learn for	Self	Self & Others	Self & Others	Self } Others
Role of tutor	Expert; in control of learning and 'holds' knowledge	Overseer of learning and validator of knowledge	Participant in learning and exchange of knowledge	Co-constructor of knowledge
Knowledge as	Information	Information	Understanding	Application and Creating
Focus	Academic world	Academic world	Academic and outside or professional world	Academic and outside or professional world
Knowledge applicable to	Academic world	Academic world and outside or professional world	Academic and outside or professional world	Academic and outside or professional world
Conception of flipped learning	Higgledy- piggledy or Jigsaw pieces	Jigsaw pieces	Jigsaw pieces	Stepping stones
Emotional response	Challenged and/or prepared/comfortable	Supported/secure	Secure/confident	Empowered/in charge

Table 4: The dimensions of variation for flipped learning

Categories of description are made up of 'critical' and 'non-critical' variation of experience (Åkerlind, Bowden & Green, 2005, p.82) where critical variation establish the qualitative differences between the categories of description. Thus, critical variation constitutes the dimensions of variation and the structure of the outcome space while non-critical variation can occur within a category of description in a way such that they can be considered sub-categories of the experience. With a view to fully illuminating each category of description in the description of each category, verbatim quotes from interview transcripts were given to illustrate both the critical aspects of each category in relation to the dimensions of variation and the non-critical aspects that are sub-categories of the experience described. With the exception of category A, in each category the critical aspects of variation were described before the non-critical aspects variation. This is because category A contains a significant but not critical divide in conceptions describing participants' emotional responses to flipped learning that constitute the category itself. Therefore, in category A attention is immediately drawn to this non-critical variation.

It is also worth noting that as phenomenography deals with all the data as one set or one 'pool of meaning' (Marton & Booth, 1997, p.132) the emphasis is on the category not individuals. However, noting that the data originates from individuals who describe their collective experience bracketed numbers indicating individual participants were given after each excerpt. This helps to demonstrate both that no single participant exclusively occupied any of the four categories presented and that

individuals can hold and describe contradictory conceptions of an experience of a phenomenon or situation. In this aspect, this current application of phenomenographic analysis follows Hallett (2010) and Ashwin et al., (2016) who qualified and supplemented their use of direct quotations with additional material to identify shared connections between participants pertinent to their respective studies. Finally, it is noted that category A is significantly larger than the other categories. This is because I wished to fully illustrate all critical and non-critical aspects of each category and given the hierarchical structure of the outcome space category A is a 'common denominator' category for all experiences described. Furthermore, it captures a significant evaluative emotional nuance that required detailed elaboration.

4.5 Conclusion

This chapter has presented all the elements required to meet the criteria of having created a rigorous phenomenographic analysis. It has demarcated the outcome space for student experiences of flipped learning and listed and explained the categories of description that comprise this space. Across and through these categories flipped learning is experienced as, A. having to take responsibility for your own learning, B. engaging with others and taking their knowledge, C. engaging with others and sharing and exchanging knowledge with them and D. acquiring, building and enhancing academic and professional skills. Furthermore, in the presentation of the categories of description this chapter has offered analysis of each category in relation to self-determination theory (SDT), cognitive load theory (CLT) and self-regulated learning (SRL). Finally, it presented the unit of experience and the dimensions of variation that comprise the experience of flipped learning for mature students accessing HE in FE. The next chapter develops this data further by discussing the implications of these findings for professional practice.

5. DISCUSSION

5.1 Introduction

This chapter explores the implications of the findings regarding the conceptions found and the variation between them. It discusses two sets of implications and recommendations that have arisen from undertaking this research inquiry. The first set of implications and recommendations are situated within and implicated by the ideological commitment to disability studies that provides the context for the underlying values and motivation for my professional practice (exercised within the structural, procedural and financial limits of my institution and the wider context of UK HE). The second set of implications and recommendations arise from my reflection on my experience of learning to use phenomenographic analysis.

The first set of implications offer insights for educators delivering HE in FE who either currently use FL or who are looking to adopt FL in their practice. However, it should be noted that chapter two problematised a monolithic idea of FL noting that FL is part of a wider family of ‘active learning’ approaches Baepler, Walker and Driessen (2014) and is on a continuum of blended learning (Garrison & Kanuka, 2004). Indeed, as Marton & Pong (2005) note, there is no meaning without variation. Thus, this research has recognised that FL is a ‘boundary object’ Dziuban et al. (2018, p.5) that coheres a wide range of research but can show variation in specific understandings and applications of the term. None-the-less, following phenomenography, it is still possible to discover and establish a consensus of experience (Marton, 1981) around cohering ideas of a phenomenon such as FL. For this research inquiry this would be what FL meant for the students who participated in the research. Such a position is necessary for phenomenography as to be able to discuss experiences of phenomena and what they mean to people we need to be able to establish some sort of agreement as to what a phenomenon is conceived to be. Therefore, while the implications below reference ‘flipped learning’ they do so in the knowledge that there is no singular way to implement FL. None-the-less, FL is used here as a term for the myriad combinations of how the elements that are understood to comprise FL may be used in pedagogic practice. The second set of implications offer insights for researchers planning to use phenomenography as their research approach. Therefore, the first set of implications is drawn from the results of the data analysis while the second is drawn from the whole process of undertaking the research inquiry. These implications and the recommendations arising from them form part of this research inquiry’s new contributions to knowledge.

5.2 Implications for educators delivering HE in FE

The following implications are offered for the consideration of educators as reasons for why they should opt to choose to deliver their courses using FL.

5.2.1 FL should be particularly well suited for use in HE in FE

As has been noted throughout this thesis, no pedagogical approach is a panacea. Therefore, while the data demonstrates that FL will not suit everyone this is also true of any pedagogical approach. Also, there will always be students who choose not to engage with learning or who may never achieve appropriate university level understanding of their subjects. However, as revealed in this research inquiry, there are several reasons why FL may be appealing to HE educators teaching HE in FE. These reasons include the re-ordering of learning in FL and what this affords, the quantity, variety and type of learning materials created to facilitate this pedagogic approach, students' ready access to these learning materials, the confidence that access to these pre-class learning materials fosters in students, and how, in turn, that confidence supports collaborative learning in the group space. Furthermore, FL's potential to help students reach a metacognition about their learning and the potential for the realisation of the co-construction of knowledge – both academic and professional - may also render it attractive for educators delivering HE in FE.

A large proportion of students who choose to access HE through blended learning provision in FE do so because they are in either part-time or full-time employment and have parental or caring responsibilities. However, these responsibilities also act as competing commitments for HE in FE students. Therefore, while it is recognised that on campus students are likely to also have competing time commitments, and increasingly may have caring responsibilities, the nature of full-time on campus degrees render it unlikely that such students will be in full time employment. Whereas, the majority of students accessing HE in FE will be in full time employment and are more likely to have caring responsibilities. Therefore, it is noted that the time demands on students accessing HE in FE differs to on campus students by degree of intensity. As such, HE in FE students are particularly 'time poor' and have to fit study in around an already full schedule. However, how learning is organised in FL supports time poor students. For while responsibility for learning key concepts is given over to students to prepare before coming to class, the overall learning task is divided into different segments requiring differing amounts of time and levels of concentration. This division and segmentation of learning is deliberately done to scaffold students' learning. Notably, in our pervasive digital environment with easy to access video sharing websites and other digital tools such as online museums or digitised archives, these learning materials are likely to be – but need not exclusively be – digital and audio-visual. The amount, range and multi-modal nature of digital learning materials that are created for this deliberately segmented scaffolded learning offers students the potential to work through this material at their own pace and in their own order of preference. Furthermore, audio-visual material is available to be watched or listened to multiple times to have a "double lesson" or to "pick up different things" in the material as students' learning progresses.

In the age of smart phones there is also ease of access to digitised material. Therefore, having a variety of multi-modal digital learning materials can help these students fit their studies into their lives as they allow them to take different lengths of time to engage with different learning tasks. Likewise, that these materials are more often than not digital, allows students to use their mobile phones and other devices to multi-task, allowing them to learn while attending to menial tasks such as dog-walking or ironing. However, optimising the limited time that such students have available, while useful, is not the most important reason for adopting FL for such courses. For as Burton et al. (2011, p.25) discovered, for the mature students accessing HE via FE that participated in their study, early, supportive and informative contact with the students allayed their apprehensions about ‘accessibility of the institution, finance or competing family commitments’. However, it was ‘preparedness/expectation/aptitude’ for HE level study that perplexed students and constituted a potential barrier. Indeed, in this research inquiry, having pre-class learning materials in FL was found to remove apprehension and build student confidence. Therefore, it is the primary pedagogic purpose of scaffolding that these learning materials are designed for, rather than merely convenience, that may be both useful for and be appreciated by students accessing HE in FE.

The deliberate segmentation of learning to support scaffolding is not unique to FL as a pedagogic approach however the nature of FL means that there may be more of this material available. This is because of FL’s ‘*intentional*’ approach to getting *all* students involved in dynamic, creative activities that support learning’ (Talbert, 2017, p.59). Thus, tutors may take the opportunity to offer various creative activities for students to use to access the direct learning that happens before class in FL. However, even if this is not the case, the organisation of learning in FL means that students come into contact with these materials prior to class so they get to work with the materials before coming to class where they consolidate their learning through collaborative group learning. As this research demonstrates, having access to these materials and the ability to work through them at their own pace gave students confidence through participating in independent learning and through removing trepidation about unknown class content. Furthermore, while in class, students are exposed to how and what others have learned from the same materials. In this way, FL foregrounds the process of learning, at different levels and stages. These levels and stages encompass the individual level, the friendship group level, the students’ table group level (which a tutor could organise as being different from friendship groupings), any combination of multiple table groups and the peer group level of the whole class. Furthermore, within particular locales of HE in FE, discussion of the result or process of this learning may occur across different classes and colleges. For example, in the FE colleges where this research inquiry was conducted it was common for students to have work colleagues, friends or relations in a different class or at the other college. Furthermore, awareness of different levels of

learning would also reveal that the students comprising these levels also represent a range of different stages of learning. Moreover, there was overt recognition that FL was, by default, a different way of learning. Therefore, the awareness of the different approach to learning employed in FL creates an environment where it is possible for students to readily reach a meta-awareness about their learning.

However, even if students do not reach a meta-awareness about their learning the data demonstrates that the collaborative learning environment that FL foregrounds offers the potential for realisation of the co-construction of knowledge (Cook-Sather et al., 2014; Oliver, 2015). Furthermore, given that many students accessing HE in FE are practitioners themselves, the knowledge that is co-constructed may be not only applicable to students' academic work but also to their professional practice. Therefore, the demonstration in the data of FL's potential to create a forum for reflective development of academic and professional understanding should make FL particularly attractive to tutors who are delivering HE in FE.

Indeed, the conceptions in category A noted that those who expressed a preference for traditional learning could still consider FL as suitable for delivering a university appropriate level of challenge. Additionally, it was conceived that FL did this in an approach to learning that was experienced as "fun". These conceptions should render the choice of using a FL approach to teaching appealing to tutors. Additionally, that FL was credited as removing anxiety through creating 'productive pressure' whilst creating a comfortable learning environment where all students not only could contribute, but were provided the means of doing so, should bolster the appeal of FL to educators. Furthermore, that FL offers a variety of readily available adjustable materials to use if tutors are required to compensate for students' lack of preparation for class, should make FL preferable to traditional learning. Moreover, FL provides this potential within a pedagogical approach that is more accessible and readily adaptable to further considerations of accessibility. For these reasons, FL could be said to meet the distributive justice values test for whether the time and effort required to use FL is worth it.

5.2.2 FL offers opportunities to be more inclusive than traditional learning

FL was perceived as being more accessible than traditional teaching as it provides a wider range of ways to access and scaffold learning in forms that were more easily understood and less difficult than "academic reads". Learning materials were also in formats that could be tailored to personal learning preferences – such as being listened to rather than watched - and could be accessed repeatedly. Responses in the data referred to FL enabling content to "sink in", providing a "double lesson" and allowing material to be "rewatched". Likewise, material could be listened to rather than read, accessed quickly and was "more inviting" than "difficult" academic readings.

The conception that FL is more accessible than traditional learning aligns with FL being more amenable to incorporating and making available multi-modal learning materials. Such learning materials are recommended for use in Universally Designed Learning (UDL). UDL is a framework that guides the design of courses and learning environments to appeal to the largest number of learners. It emphasizes flexibility in how instructional material is presented, how students demonstrate their knowledge and skills, and in how they are engaged in learning (Burgstahler, 2015). Thus, while FL incorporates flexibility in how instructional material is presented and how students are engaged in learning particularly by making use of digital material, on its own FL falls short of UDL's deliberate consideration of providing the largest range of accessibility for learners. Likewise, FL does not stipulate providing flexibility in how students demonstrate their knowledge and skills. Indeed, this is often an institutional barrier to the implementation of UDL as HEI's continue to insist on traditional academic essays and exams as the preferred means through which students demonstrate their knowledge. None-the-less, notwithstanding the persistence of HEI's preference for traditional modes to demonstrate knowledge, FL does provide a context within which working towards creating universally accessible learning becomes easier. Therefore, in a traditional HE environment that insists on students demonstrating their learning through producing essays and sitting exams, FL can be used to provide students greater access to and better engagement with learning.

However, it should be noted that this finding has a proviso in relation to the findings in category A of FL learning being different but not worthwhile due to the different approach of FL being perceived as "higgledy-piggledy". It was not entirely clear cut in the interview if the participant used this phrase to refer to the pedagogical approach of FL or if it was a reflection on the second-year curriculum. However, upon reflection, the choice was taken to take this response as pertaining to FL as a pedagogical approach. In the interests of transparency, the interview excerpt and an explanation of this decision is given in Appendix 7. Therefore, while FL offers opportunities to be more inclusive than traditional learning, the research demonstrates that there is a need for this to be explicitly explained to students.

5.2.3 FL should help to foster responsibility for learning

It is noted in the literature in the field that one of the key challenges for FL is getting students to take responsibility to complete the pre-class preparation activities upon which FL depends (Tomas, et al., 2019; Velde et al., 2021). Although, students' lack of preparation is also recognised as a problem for traditional teaching approaches. However, the variety of digital multi-modal learning activities that rendered FL being conceived as more accessible also supports the finding that FL provides more access points to enable students to take varying levels of responsibility when preparing their pre-class learning.

It was discovered in the data that while there was recognition of ultimately letting yourself down if you do not prepare for class, the idea of not letting others down was also expressed as the idea of an “unwritten rule” that you should contribute because of the variety of scaffolding material available. Therefore, moving the consequences of the responsibility for learning from the student (self) - tutor dyad relationship, to the student (self) – tutor and student others triad relationship creates a level of responsibility to one’s peer group that, while it also exists in traditional learning, in FL is rendered explicit and impactful precisely because of the pre-class scaffolded learning material and the in-class focus on collaborative learning. Furthermore, the emphasis on multi-tasking that came through participant responses demonstrated a recognition of the competing commitments mature students accessing HE in FE face. Positioned against the emphasis on collaborative learning embedded in FL, it is notable in the data that when describing learning several participants responded using the pronoun “we” or “you” in the general plural, rather than “I” e.g. “But because as a mature student you’ve got 101 things to do”. Thus, the idea of individual responsibility as part of communal responsibility in FL was recognised within the context of students being ‘time poor’ with competing commitments. In this circumstance it was recognised that the students were learning together as a group, through individual and group efforts. Thus, learning was conceived as a “jigsaw piece [puzzle] that we were fitting together”. Therefore, against this recognition of the link between - and importance of - individual and communal responsibility and by offering a variety of digital multi-modal learning activities of varying lengths and requiring various levels of concentration, FL can be said to support students by fostering them to take responsibility for their own learning by allying that to a responsibility to their peers’ learning.

In relation to SDT, it is through the process of moving the dyadic relationship of the responsibility for learning to a triadic relationship that FL promotes students’ progression through the continuum of SDT to active commitment. This is where integrated regulation is intrinsically motivated as students integrate course values as their own. Albeit that in relation to FL, students are integrating the values implicit in this pedagogic approach – learning to help yourself and others learn - rather than the course content values, as their own.

5.2.4 FL should offer more points of positive emotional engagement in learning

It was discovered in the data that FL helps to reduce student anxiety as in this pedagogic approach students are aware of what class content will be. Also, they are introduced to key concepts and terms which they may engage with at their own pace and repeatedly, prior to coming to class. While in class there are collaborative tasks designed to promote further engagement with and application of the concepts and terms. These tasks are designed to support the correction of any misconceptions students may have and to develop the learning that students have already done. However, and

importantly, the fact that students will have experienced progress as they have worked through the scaffolded pre-class learning materials, combined with the collaborative and supportive nature of the classroom group space which supports the recollection of learning being described as “fun”, may help to mitigate against any disheartening feelings that arise in the correction of misconceptions. Hence, the conceptions that construed the idea that FL removes the pressure for your independent learning to be “100% right” as FL allowed for independent learning to be unsuccessful because “you’re going to learn about it in class anyway”. Therefore, rather than negating the need to prepare, this situation creates a ‘safety net’ for students to learn independently with the assurance that any misunderstandings will be corrected in class discussion. However, even if students have not prepared for class, the consolidation of the learning activities done in class would help to foreground clear and appropriate understandings. Although it is noted that some students simply never achieve appropriate understandings. Nevertheless, it was for these reasons, participants referred to FL as creating a comfortable “homely” learning environment where participating in learning is more important than being correct.

5.2.5 FL offers more opportunities to support the building of micro learning communities

This implication is derived from themes that emerged in the research that resonate with the previous implications; namely, preparation, scaffolding, confidence, participation and collaboration. It is recognised that other pedagogic approaches may result also result in collaboration e.g. Problem Based Learning that uses group work, and also that students often form study groups of their own volition. Indeed, in the interviews participants mentioned their use of WhatsApp to create study support ‘micro-communities’ (Karapanos et al., 2015, p. 895). However, this implication suggests that it is FL’s deliberate use of digital multi-modal learning materials to scaffold learning that enables students to participate in a collaborative way by providing the means to create a common ground of understanding. Likewise, the expectation of and responsibility for preparation coupled with the variety of options offered through which to participate in learning created multiple access points to be able to contribute to a discussion about what was expected to be learnt from course content.

During interviews it was noted by participants that as part of their time management strategies, they would confer with fellow students about what aspects of the pre-class preparation work they had done. While aspects of this may occur in traditional learning, in FL the overt emphasis on responsibility and collaborative learning, along with the various digital scaffolded materials available to engage with - lends itself to a digital micro-community focused on learning being more likely to be created. Likewise, given the competing time commitments of these time poor students, the variety of digital scaffolded learning materials created to engage with, offered opportunities for selective engagement that would be collated in the classroom when these study groups met face-to-face. Therefore, in their

discussions of what the group had collectively prepared, students would note the time they had available that week and what task they could do to contribute to the groups learning within the time available.

The group collaboration necessary for forming micro learning communities was also evidenced in the discussions that took place in interviews about compensation strategies used when someone was unable to prepare for class. However, and importantly, not being able to prepare for class was never positioned as a deliberate act, rather it was understood as simply a consequence of not being able to always prioritise full completion of preparation materials when dealing with competing commitments. Therefore, in relation to SDT, the intrinsic motivation and active commitment to learning was recognised by participants as a common disposition shared across the cohort. Also, the assistance offered to support learning in these circumstances is evidence of the manifestation of communal responsibility felt in FL peer groups.

Through this process FL may be said to create 'communal knowledge'. This term has a specific meaning in the 'knowledge-building communities model' (Scardamalia & Bereiter, 2003) which sets out how such knowledge should be produced. However, the goal of the knowledge-building communities model, the 'production and continual improvement of ideas of value to a community' (Scardamalia & Bereiter, 2003, p. 1370), is shared by FL. However, within FL the focus on discussion and collaborative learning tasks are used to produce this knowledge. Thus, here 'communal knowledge' is used to describe a coming together of individual knowledges to be shared and discussed in the classroom group space. Notably, while this may be a feature of all group discussions, in FL the focus on collaborative learning and group discussion is supported by the use of a variety of scaffolded materials which provide multiple points of entry to knowledge building and learning. Thus, FL maximises the potential for this communal knowledge to be created and offers opportunities for all members of the learning community to participate in its creation.

In relation to CLT and the emphasis it places on the importance of creating schemas to support understanding, creating this communal knowledge is the means through which students learn of others' "knowledge of concepts" which they take away and "build upon". Thus, this is the means through which students learn of other's ideas that aid them when they are building their own schemas to facilitate their understanding. Furthermore, this knowledge is recognised as a knowledge to which all members of the class have a claim. Albeit, that individual understandings of this knowledge and its implications may differ. Therefore, while it was recognised that "some people didn't really get it in the way that some of us did" none-the-less they were able to "engage", participate and contribute to the discussion.

5.3 Recommendations

If educators delivering HE in FE chose to adopt FL or are already using FL to deliver HE in FE then they may find the following recommendations derived from the implications of the results of this research inquiry useful to adopt into their practice. Both of these recommendations support previous research in the field of FL.

5.3.1 If being used FL should be explained to students

If FL is being used then findings indicate that educators need to introduce and explain FL to students to reassure them that the efforts they will be required to make in this mode of learning will be worth their while. These findings concur with previous studies that note that students need to be prepared for flipped learning (Fisher, et al., 2017; Akçayir and Akçayir, 2018; Tomas et al., 2019; Velde et al., 2021). This is understandable given that the dominant and culturally expected teaching approach adopted in secondary education in the UK is the traditional didactic method with after class activities (homework). Therefore, any student joining a flipped HE course would need to be acculturated into FL and the process of doing self-directed independent learning activities before class, rather than after class. Such support will be particularly important in attempting to persuade those who may conceive of FL as different but not-worthwhile, that it is a valid pedagogic approach that produces a worthwhile learning experience of equivalent quality to traditional learning.

If adopting FL to deliver HE in FE it may be useful to couch this explanation in terms of responses given by the participants in this research inquiry, as they too are mature students with similarly limited time and competing personal and professional commitments. For example, explaining the conception of FL converting the stress of undertaking university study into 'productive pressure' and referring to the explanations given in category A may be more convincing for such students as the explanations are given by students in similar situations as themselves.

Nevertheless, while trying to reassure students of the value of FL educators should be aware that no pedagogic approach is a panacea so it should be expected that some students may never be convinced of the worth of, or develop a preference for, learning in this way. (Although, perhaps it is some solace for educators and students alike that in this research inquiry the data showed that preferring traditional learning does not preclude students from enjoying a flipped learning approach). This preference may be because some students may lack of confidence in their own abilities to learn independently. This may be a typical disposition of students who perceive tutors as holding knowledge which is 'given' to them. It may also be the preference of students who find active learning too effortful (Velde et al., 2021). Furthermore, regardless of the pedagogic approach adopted for some students, no level of confidence will be enough to make personal learning valuable if they lack the

potential competence related to this demand of university level learning.

Students who prefer traditional learning are present throughout literature in the field that presents findings supporting the use of FL. Albeit that the presence of such students is either not addressed (e.g. Meyer, 2013) or they are positioned as FL 'resisters' e.g. McNally et al (2017) and Broman & Johnels (2019). Such nomenclature positions these students as 'wrong' and in need of education to 'appreciate' or 'convert to' FL. However, such nomenclature allows researchers to ignore rather than address the fact that students will have spent their educational lifetime adapting to and using more traditional learning. Given this, it is perfectly reasonable that some students will always express a preference for the more traditional pedagogic approach. Therefore, rather than imposing either learning model, where viable, educators could consider offering a choice of pedagogic approaches on their courses namely, delivering one course using both a more traditional didactic model and a FL model of learning. Indeed, this could be done across two terms or semesters.

Such models have been introduced for comparative experimental studies of FL and traditional lecture learning. As such they have been introduced on a business course (Findlay-Thompson & Mombourquette, 2014), calculus course (Scott et al., 2016), pharmaceutical course (Anderson et al., 2017) and engineering course (Castedo et al., 2019). Findlay-Thompson & Mombourquette (2014) found that academic outcomes were identical across the three classes, Scott et al. (2016) found that FL was an equally effective way to disseminate key calculus concepts to undergraduate students and Anderson et al. (2017) found that at the 6-month test point FL exam scores were not statistically significantly higher than traditional teaching. Whereas Castedo et al. (2019) found that students taught via FL had a better general level of understanding and that for students with a higher degree of involvement there was a grade increase of 1.5 points. None-the-less, Castedo et al. (2019) notwithstanding, these studies exemplify the fact that FL should not be undertaken with a view to increasing student learning outcomes but for the other reported benefits FL brings to the learning experience and supporting learning. For example, Castedo et al, (2019) found that while students expressed reluctance to learn via a FL approach, doing so increased the hours that students studied, reduced absenteeism and increased exam attendance.

As previous research has shown and this current research supports, in whichever way courses are organised, students should be supported to understand and transition into FL. Although how students are supported in this transition will depend on the nature of the course being taught and its contexts namely, what amount of time is available to give over to supporting students to make this shift. For example, for full-time university courses (Tomas, et al., 2019) recommend a scaffolded transition to FL taking place over several classes over several weeks. However, for HE courses delivered in FE where

face-to-face teaching time is often at a premium, it may be more prudent to introduce the tenets and expectations of FL when promoting the course at open days or during induction week. Indeed, given the nature of FL this could be done via an induction video and could be supported with online tasks. Positioning the explanation of FL as an induction activity would have the advantage of setting expectations at the beginning of the course while using a video would make the material available for students to refer back to as they wish.

Also, it may be useful to signpost the quality of learning achieved in FL. This may help to pre-empt any negative perceptions in comparisons with more traditional learning. Albeit that these negative perceptions may always exist, explaining how classes are organised and prepared in such a way that the tutor uses their pedagogic knowledge and skill to ensure suitable advancement of subject knowledge is achieved in each session should be brought to students' attention. It should be noted that such advancement of knowledge reflects the intentions of more traditional didactic learning but in FL is achieved via a pedagogic model that seeks to build students' independent learning skills and privileges dialogic learning. It would be hoped that addressing the process of FL (what happens in FL, how it works and what students are expected to do) and how learning happens in FL would prevent, or at least lessen, the disorientation and discomfort felt by students who may externalise their agency and responsibility for learning by conceiving of knowledge as information held by the tutor. Indeed, in doing so it would be hoped that students would come to recognise the suitability of the approach as being appropriately challenging but beneficial for tertiary level education. In particular, that as an active learning approach (Baepler, Walker and Driessen, 2014; Li et al, 2022) FL makes more expedient use of class time than more traditional learning (Talbert, 2017).

In the explanation of FL recommended by the implications of the findings, in order to address the possibility of esteem issues for some students regarding the inferiority of their academic abilities and knowledge, it may be useful to explain that all contributions about topics are a valuable part of learning. This is particularly so within a HE in FE context where students will be mature students with relatable employment or life experiences. This point relates to SDT and the need to satisfy students' need for relatedness, defined as feelings of belonging to and being an active participant in a learning community. Thus, the idea of the differing quality and relevance of student contributions should be explained as part of the holistic learning experience offered in FL. Namely, every student has the right to and should contribute in discussions. However, it should also be explained that FL allows for the fact that some contributions may be incorrect or irrelevant, as this will be taken up, discussed and corrected or clarified as part of the collaborative process of group learning. Indeed, it could also be explained that such contributions have value in that they allow others to consider how an idea or

concept is being misunderstood and misapplied. As such, they create a space for both tutor and student's responses to take account of how such misunderstandings may occur, thereby deepening understanding through attending to how to better explain and support correct understandings.

However, again, it is acknowledged that FL is not a pedagogic panacea. As, no matter what pedagogic approach is used, there will always be variabilities in students' comprehension and understanding of their subjects as well as differing levels of commitment to the responsibility of preparing for class. Namely, students may either be unable to prepare for class or will demonstrate their autonomy through choosing not to prepare for class. Indeed, the issue of university students not being able to engage with academic texts or choosing not to engage – which are not necessarily separate issues – remains a perennial issue in HE (Ritchey and List, 2022; Theriault, 2022). However, the onus is upon committed educators to acknowledge the existence of the former while seeking to remove barriers to the latter.

The intractable issue of students being ill-prepared for classes confronts both more traditional learning approaches and FL. However, FL is a pedagogic approach offers the potential for tutors to relinquish their traditional control of learning thereby realising the opportunity for learners and tutors to co-construct knowledge. Never-the-less, in everyday teaching situations there will be times when tutors have to exercise their experience, knowledge and control to ensure that learning is appropriately focused. Although, within an effective FL context there will be a variety of pre-class learning materials available to tutors in order to make this re-orientation easier. Namely, there will be short videos or particular excerpts from videos available for tutors to play to give context for class tasks and discussions. Typically, in traditional approaches lack of student preparation may result in the redistribution of a core reading allocated to different groups to explain section by section. However, within FL this would be only one option among others. Indeed, given that students may not prepare any pre-class tasks – engaging with readings or engaging with any other material – at least FL offers a choice of material to provide a learning context within which to restructure the class to meet the session learning outcomes. For these reasons, FL is recognised as being responsive as it provides learning tools to enable educators to react and adapt to specific learning situations (Talbert, 2014). Furthermore, by having these other options in FL, this approach may help to lessen any boredom or resentment felt by those students who have prepared the reading for the class. Thus, they would be invited to bring the knowledge from the reading to apply to the task and to share in both their group discussion and the wider class discussion. Therefore, even when it fails, FL allows more points of engagement through which tutors can support learners in their attainment of learning.

In this way, FL offers more flexibility than more traditional learning to support the reorientation of classroom practice in the face of the negation of learning or the correction of misunderstandings during learning. Therefore, it is argued here that the measure of FL should not be the value of efficient learning i.e. outcomes measured as grades, but rather equity of access to supported learning and the intrinsic value of participating in the process of creating knowledge through collaboration. Namely, FL's value is in supporting students to participate in a knowledge building community together. Therefore, what is valuable in FL is that different ways of supporting learning are offered to allow students to engage with learning according to their preferences and that everyone feels included in the process of learning. Thus, it is the quality of learning experience in FL that marks it as worthwhile undertaking (Velde et al., 2021). However, that this occurs whilst also offering tutors a more varied range of learning material to utilise should the situation require them to exercise greater control during any given session is an added dimension of practical pedagogic support that FL offers.

None-the-less, there is an obvious proviso to choosing to adopt FL rather than more traditional learning. Namely, that those who prefer more traditional learning will have to adapt their learning style. However, this can be justified by the development of the graduate skills and attributes that FL supports as it is noted that FL is particularly well suited for helping to realise the challenge that is expected of university level education and skills development (Talbert, 2017; Väisänen & Hirsto, 2020). In particular, Väisänen and Hirsto (2020) foreground the role of FL in supporting the development of key transferable working life skills of self-regulation, collaboration and communication. In the data in this research inquiry these skills were referred to as “responsibility” and were recognised as being founded upon actively taking responsibility for undertaking the pre-class preparation to facilitate collaboration in class. As pre-class preparation is the most cited aspect of FL that students express negativity or concern over, the development of these key transferable skills through this aspect of FL should be foregrounded to students. Such explanation should help students to perceive the responsibility for independent learning and the opportunity to self-pace learning that FL offers as not only appropriate for university level learning but also as supportive of skills building for graduate level employment. Finally, in terms of readiness for active learning, while this is fundamental to the FL approach, for mature students accessing HE in FE, the findings indicate that allowing class time to ease students into class activities may be welcomed as typically such students will have been at work all day and may appreciate a little space to orientate towards the planned learning activities.

5.3.2 It may be useful to signpost the alignment of activities to learning outcomes

One argument for the use of FL is that the use of a variety of creative learning materials for pre-class preparation and in class learning means that it makes learning more active and engaging, and therefore more interesting for learners. This idea is often expressed through the idea of FL making

learning ‘more fun’ (Talbert, 2017, p.275). With the qualifier ‘more’ acknowledging that traditional learning can also be experienced in this way. However, it was discovered in the data that to be considered worthwhile engaging with, creative activities should have a clear pedagogical purpose. Therefore, the findings indicated that for learning to be perceived as fun it should also be ‘constructively aligned’ to the session or course learning outcomes (Biggs, 2003; Velde et al., 2021). Thus, it may be useful if clear guidance is given (Kim et al., 2014) and the pedagogic purpose of activities are explicit so that it can be recognised by students (Velde et al., 2021). Within the data, this idea of the recognition of constructive alignment was most clearly expressed by the participant who referred to them perceiving the progression of their learning and increasing knowledge in terms of percentages.

Therefore, by inference, students may find creative activities that are used merely to increase the perception of ‘fun’ off putting, “dull” or frivolous. Signposting the pedagogic purpose of creative learning activities may help to assure students that the fun they experience is integral to their learning rather than simply being a nice experience. Furthermore, in relation to SDT, providing clear guidance and explicit recognition of the pedagogic purpose of activities and the link between all activities helps to support students’ progression toward integrated regulation (Niemic & Ryan, 2009).

5.4 Implications for researchers adopting a phenomenographic approach

It is recommended that researchers undertaking phenomenographic research for the first time are mentored by experienced phenomenographers (Ballantyne & Bruce, 1994; Bowden & Walsh, 2000). In this research inquiry this was not possible. Therefore, this thesis presents phenomenographic analysis undertaken by an individual researcher using a phenomenographic approach for the first time. As such, the implications and subsequent recommendations offered below arise from reflections on this experience. The implications are acknowledged and the recommendations suggested as they may firstly, prove useful for other first time phenomenographers and secondly, offer points of consideration for more experienced phenomenographers.

5.4.1 Reflections on undertaking individual phenomenographic analysis

As qualitative methodology, it is recommended that trustworthiness is achieved in phenomenography through analysis done as a group process (Bowden & Green, 2005; Bowden & Walsh, 2000). In this group process reliability is checked by having independent researchers consistently assign data to the categories of description that have been generated to ensure inter-judge reliability and communicability (Cope, 2004). It is asserted that doing phenomenography as a group process helps to guard against individual researcher bias (Bowden & Walsh, 2000). However, despite these recommendations, it is acknowledged that quality individual phenomenographic analysis can be achieved (Bowden & Walsh, 2000). This can be done through an iterative and interpretive

interrogation of the data which keeps going until the researcher is convinced that they have exhausted the possibilities of describing the distinctly different ways of experiencing the phenomenon being studied drawn from participants' descriptions of that phenomenon (Booth, 1997; Cope, 2004). Indeed, this mirrors the group process (Bowden, 2005). However, for an individual researcher – as for a group of researchers (Bowden, 2005) – delineating such possibilities can be experienced as an exasperating and exhausting experience. Never-the-less, it is in the process of interrogating the data that an important aspect of the trustworthiness of a research inquiry is built (Collier-Reed et al., 2009). Likewise, this intensive interrogative process lends quality to the analysis completed in phenomenographic research. This quality requires a commitment to the lengthy interrogation of the data required to produce the structural and referential aspects of the unit of experience and a full investigation of the possible dimensions of variation that differentiate the categories of description from one another. Neglecting to fully explore the range of possible dimensions of variation with a view to establishing the dimensions that may be held relatively constant over any particular category but may be experienced qualitatively differently in each category of description renders a phenomenographic analysis incomplete. Consequently, this means that what is often presented as phenomenographic analyses are in actuality only the thematic analysis that is done in the first stages of a full phenomenographic analysis. Appendix 8 illustrates what this would have meant for this research inquiry.

5.4.2 Reflections on producing full phenomenographic analysis

Researchers using phenomenography for this first time should be aware that to produce a valid phenomenographic analysis of quality, all the constituent parts of phenomenography that constitute the outcome space must be derived from the data. Namely, the categories of description which create the outcome space require the detail provided by the dimensions of variation and the unit of experience for phenomenographic analysis to be valid. As Hallett (2013) notes, phenomenography is a two-stage process that requires the development of the outcome space into a table representing the unit of experience to be able to reveal and analyse the structural and referential aspects of the participants experiences of the phenomenon. Therefore, I would contend that without the 'meta-analysis' (Hallett et al., 2019, no pagination) of the outcome space and all the component parts being produced, phenomenographic analysis has not been applied and the outcome space is not complete. This point is important as there are many published phenomenographic analysis where only the categories of description comprising the outcome space are given e.g. the BERA report by Mimirinis et al. (2022). While it is understood that this may be prudent for the exigencies of publication it can give the wrong impression of the research approach to those seeking to use it. This may mean that researchers do not commit to the intellectual effort required to undertake phenomenographic

analysis because they are either not aware of it or do not understand it. Over twenty years ago Bowden (2000, p.14) expressed concern that this situation may lead postgraduate researchers to 'model their own research on incomplete understandings'. Indeed, several theses I located and used to help me to both reach an understanding of phenomenography and model my own thesis did not contain all the necessary component parts of a phenomenographic analysis. Furthermore, the fact that when assessing the theses I initially selected those without structural and referential aspects to follow is indicative of both how difficult phenomenography can be to grasp and the complexity of phenomenography done properly. Therefore, while such concerns over the quality and trustworthiness in phenomenographic analysis are not new, they remain a concern for a research approach that is still relatively new in terms of more established research methodologies.

5.5 Recommendations for phenomenographers

There are excellent collections discussing and reflecting upon phenomenography (Ballantyne & Bruce, 1994; Bowden & Green, 2005; Bowden & Walsh, 2000) and articles about individual aspects of the phenomenographic process e.g. (Åkerlind, 2012), the individuality of each phenomenographic study (Åkerlind, 2018) and issues of quality in phenomenography (Cope, 2004; Sin, 2010). However, in my experience of learning and using it I would suggest that the following refinements to the process may be useful for future phenomenographers.

5.5.1 An illustrated guide to phenomenography should prove useful

In order to support the production of full phenomenographic analysis an illustrated guide to the complete psychological underpinnings of the approach should prove useful for researchers. Such a guide would include the diagrams presented in chapter three. Having access to such a guide would allow researchers adopting this approach to appreciate the complexity and rigour required of this research approach in an easy to understand format. Of course, it would be expected that researchers would still read the foundational and seminal texts in the field but visual representation of the key tenets in the field would allow researchers to overcome the reductionist approaches circulating that diminish the integrity and intellectual effort required to apply phenomenographic analysis.

5.5.2 Categories of description can remain unfinalized until final submission

Accounts of phenomenographic analysis give the impression that once the unit of experience, dimensions of variation and categories of description are mapped out the analysis is done. However, the experience of this research inquiry has taught me that the categories of description are not set in stone. For some time in the analysis process I was concerned that some important quotes I had extracted from the data did not have a 'home' within the categories of description and felt this may be a limitation of the method. However, it transpires that it is perfectly possible to add to the categories of description long after you think they have been settled. Furthermore, doing so can make

categories more nuanced without affecting their fundamental nature. So, any important but ‘stray’ quotes need not be discounted (Åkerlind et al., 2005) but should be kept so that they may find a home later in the analytic process.

5.5.3 Retaining individual respondent identifiers for quotations should prove useful

In his account of the iterative process required to reach version eight of the ‘success’ categories of description Bowden (2005) presents the table of which there is an extract in Figure 21 – to show the tracking used for tracing remarks that the emerging categories of descriptions are based on. By the seventh iteration of the eight-cycle iterative process this tracking is gone, as illustrated in Figure 22.

Appendix A

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**Table 1: Draft categories of description ‘success in research’
John Bowden, 19 June 2002**

Category	description	Transcript No. (page nos.)
A	Research is successful if it makes a difference to the world. There should be useful outcomes. They may be in the form of solutions to problems experienced by people or they may be changes to the body of knowledge, either in a quantitative (adding to knowledge) or a qualitative sense (understanding something better than before).	4 (7); 5 (1,5,7,8); 7 (11); 8 (7); 11 (10, 11, 12,14); 14 (6,7); 18 (4, 7); 20 (4,7); 21 (4,8); 23 (10,11)

Figure 21: Extract from Bowden’s draft categories of description (Bowden, 2005, p. 159) (reproduced with permission from the author)

Appendix A

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**Table 7: Draft categories of description of ‘success in research’
Version 7 – John Bowden, 25 September 2002**

Category	description
A	Research is successful if it makes a difference to the world either by affecting other people’s lives or by producing something new. Research outcomes should be useful and, preferably, put to actual use. One form of utility is finding solutions to problems experienced by people. Another form, often achieved by appropriate scholarly publication, is enriching the body of knowledge either in a global sense or on a more individual level. Increasing other people’s awareness and helping them understand better than before. Outcomes may be in one of these two forms independently or with the two forms integrated together. The integrated perspective seeks useful but theoretically grounded outcomes.

Figure 22: Extract from Bowden’s seventh of eight iterations of draft categories of description (Bowden, 2005, p 165) (reproduced with permission from the author)

Given that the purpose of phenomenography is to establish collective conception, it is not surprising that such accounts of this research process suggest jettisoning the tracking of individual participant responses to create categories of description. However, I have found it both practically useful and theoretically insightful to keep the individual participants identified within this thesis. Doing so helps to deepen researcher knowledge, understanding and appreciation of how the group conception is created in phenomenography. While on a practical level it makes tracing and retrieving further quotes from the interview transcripts easier. Albeit, I acknowledge that these individual participant markers may need to be removed for any future publication.

5.6 Conclusion

This chapter has reviewed the data in order to select key implications and recommendations for practitioners using FL or looking to implement FL. It suggests that FL should be particularly well suited for delivering HE in FE as it should help to foster responsibility for learning and offers more opportunities than traditional learning to offer inclusive learning. Furthermore, FL should offer learners more points of positive emotional engagement with learning whilst also offering more opportunities to support learners to build micro learning communities. However, to help realise the potential of FL it is recommended that FL is explained to students in such a way as to render its pedagogic potential transparent. Likewise, to meet this pedagogic potential it is recommended that educators constructively align the learning activities they ask students to engage with to session and course learning outcomes. Furthermore, it is also recommended that educators make this alignment explicit to students.

This chapter also offered a selection of implications and recommendations for researchers looking to adopt a phenomenographic approach in their research and to conduct phenomenographic analysis. Reflecting on the process of completing this research inquiry it suggested that researchers be aware of the intellectual effort required to interrogate data to the level needed to produce a phenomenographic analysis. It suggested that to not do so risks researchers producing thematic analysis rather than full phenomenographic analysis. Furthermore, it reflected upon the fact that researchers should be aware of all the requisite component parts of phenomenographic analysis that need to be derived from the data. Namely, the unit of experience, the dimensions of variation, the categories of description and the structure of the outcome space. It suggested that to not produce all of these elements would render a phenomenographic analysis incomplete.

Finally, the chapter concluded by making three recommendations for researchers undertaking phenomenographic research. Firstly, it suggested that an illustrated guide to phenomenography should prove useful to those undertaking phenomenographic research. It also suggested that illustrations used in chapter three of this thesis should prove useful in such a guide. The second and

third recommendation relate to practical matters in phenomenographic research. The second recommendation suggested that categories of description may remain unfinalized until the publication of research. Reflections on the research process led to this recommendation as it was noted in the completion of this research inquiry that it was possible to go back to presumed settled categories of description to add illustrative quotations that both enhanced and deepened the understanding of the experience being described. Importantly, it was possible to do this without compromising the integrity of the category of description being added to. The third recommendation, arising from the second, noted that if during the analysis researchers retain individual transcript numbers to indicate where each quotation that constitutes the pool of meaning comes from, this makes tracing further related quotations (where for example an interviewee uses a metaphor peculiar to them) or double checking the context of quotations to verify researcher interpretation much easier.

6. Conclusion

6.1 Introduction

This research inquiry is a piece of practitioner research and as such, has offered recommendations for future practice as well as for future researchers using phenomenography. This chapter demonstrates that the research questions have been answered and specifies what this research inquiry contributes to knowledge. It also makes recommendations for future research, acknowledges the limitations of the present research and concludes by offering a professional reflection on the experience of completing this practitioner research inquiry.

6.2 How has this research inquiry addressed the research questions?

As a phenomenographic analysis the research set out to answer the following questions:

1. How do students¹ conceptualise their experience of flipped learning?
2. What is the variation across conceptions?
3. What can these conceptions and the variation across them tell us about student experiences of learning support in flipped learning? (i.e. what does it add to scholarship in this area?)

Likewise, as a phenomenographic analysis, it has answered these questions by producing all the component parts required of phenomenographic analysis. These components are: the categories of description that comprise the outcome space of the analysis, the unit of experience and the dimensions of variation between those categories of description.

6.3 What does this research contribute?

The significance of this research lies in the discovery and presentation of the categories of description that form the outcome space for understanding flipped learning from the perspective of mature students accessing HE in FE on a university outreach programme that uses this pedagogic approach. The four qualitatively different understandings of FL discovered that form the outcome space for flipped learning were foremostly found to be related to students' conceptions of knowledge and the temporal orientation from which the students positioned their understandings. Namely, there was an epistemological shift found in the expanding awareness between categories B and C that related to students' conceptions of knowledge. In categories A and B, knowledge was viewed as information held by others. However, as awareness expanded across categories C and D, knowledge was conceived as understanding shared between the self and others (category C) that was co-created and could be applied in either the academic or professional realms (category D).

In terms of the structural aspects of temporality common to all the categories, the differences in meaning across the referential aspects were linked to the past-present, present or present-future temporal orientations of responses. Past-present orientation generated the meaning of 'not bring

given knowledge' (category A), while present orientation generated either the meaning 'engaging and taking knowledge' (category B) or 'engaging and exchanging knowledge' (category C). Notably the epistemic variant in conceptions of knowledge between categories B and C determined which of these categories responses belonged to. Finally, present-future orientation generated the meaning of 'building and enhancing skills' (category D) skills that, as noted above, could be applied in either the academic or professional world.

Further themes of expanding awareness that constituted the dimensions of variation that both linked and separated the categories of description discovered (Table 4) were who was believed to benefit from learning, who the responsibility for learning belonged to, who students were motivated to learn for and the role of the tutor. Variation across these dimensions saw flipped learning conceived as 'higgledy-piggledy' (category A), jigsaw pieces (category A, B & C) or stepping stones (category D). In turn this variation linked to emotional responses to flipped learning conceived as students being 'challenged and prepared or prepared and comfortable' (category A), 'supported and secure' (category B), 'secure and confident' (category C) or 'empowered and in charge' (category D).

The categories of description and the dimensions of variation discovered offer insight into student experiences of flipped learning that offers a deeper understanding of why some students may choose to 'resist' (Broman & Johnels, 2019; McNally, 2017) this approach to learning. While such a small research inquiry is not generalisable, none-the-less, having this glimpse of these specific students' experience may offer educators points for consideration if they are seeking to address or avoid students' hesitance in engaging with this pedagogic approach.

This research inquiry also used a combination of SDT, CLT and SRL to provide a theoretical framework through which to examine the categories of description discovered in this phenomenographic analysis. Using this framework provided insights into both the categories of description and the variation between them. However, in terms of the use of these theories to reflect on the data, Self Determination Theory has proven most useful in illuminating this analysis of flipped learning. Specifically, in regards to how quotations used in the categories of description reflected the detail of the elements required for increasing integration of course values outlined in the course values continuum in SDT (Figure 5).

Finally, in regard to phenomenography, the methodology chapter offers a visual explanation of the phenomenographic understanding of the awareness of learning and experience that may prove useful to future researchers.

The experiences of mature students accessing HE in FE is an under researched area within which there is scant research on flipped learning. To address this gap in knowledge, this research inquiry has produced a phenomenographic analysis of the experiences of mature students' experiences of flipped learning in HE in FE. While as a small and specific research inquiry the research findings are not generalisable, none-the-less, the research offers a substantive exploration of mature students' experiences and conceptions of flipped learning which may be useful for practitioners either teaching in or planning such provision.

6.4 Recommendations for future research

This research inquiry has helped to address the paucity of research on mature students accessing HE in FE with a specific focus on the use of FL to support their learning. However, in doing so it has also revealed where future research would be of use. One such area would be in SDT, where a comparison study between younger students and mature students would help to establish if mature students have higher starting levels of motivation. In terms of building a body of research on FL in HE in FE, it would be useful to repeat this research with a different cohort at the same institution or indeed at a different institution. Such research would also be useful in terms of revealing the influence of the ideological context of conceptions on the production of phenomenographic categories of description (Marton, 1981). Alternatively, using different research approaches with students learning at the same institution may uncover aspects of FL not revealed through this present research inquiry.

Given that this research inquiry has revealed a generally positive attitude towards the support for learning that FL offers in HE in FE, and successive governments wish to expand this provision (Bullock & Henry, 2023), it would be informative to research the attitudes of educators in HE in FE towards FL and their confidence in using this approach. Also, given that FL is seen as an 'alternative' pedagogical approach, evaluating knowledge of, attitudes towards and confidence in using FL compared to educators' career stages may also be a fruitful and informative research area to explore.

6.5 Limitations of the research

The research presented in this thesis only applies to the specific context investigated and to the small number of particular students who participated. It would have been desirable to have more participants and to have been able to interview the male students on the course. None-the-less, when asking research participants to volunteer, researchers have to be grateful to those who give their time, experience and knowledge freely for the researcher's gain.

Likewise, in terms of creating a consensus of conceptions from a 'pool of meaning' (Marton & Booth, 1997, p.132) phenomenography does not address aspects of diversity that may influence individual experience. None-the-less, the results of this research could be used to encourage research of student

experience in view of variables such as age, marital status, care giving responsibilities, ethnicity and ability.

It is also noted that voluntary participation in practitioner research where the practitioner is researching students that they teach or are responsible for does risk bias, as it is common for only those who have favourable opinions of the experience to feel confident and comfortable enough to come forward. This is especially the case in practitioner research where the participants are in an unequal power differential with a tutor who is conducting the research. However, the interview excerpts presented demonstrate that at least some participants did feel comfortable enough to express negative opinions about their experience. Thus, ethical considerations relating to power relations can be seen to have been at least in some part successful. Furthermore, that they were negative opinions and that participants felt comfortable to express them has added important insights to the research findings.

6.6 Professional Reflection

Undertaking this practitioner research inquiry has not only trained me to be a researcher and a phenomenographer but it has also, and importantly, developed me as an educator. The pedagogic knowledge and insights I have acquired through the research process have developed my insight into and my confidence in my craft. This has been achieved through adopting phenomenography for my practitioner research inquiry. In doing so I have subjected my practice and pedagogical perspective to a critical and interrogative approach that has led me to a very different way of 'knowing and understanding' (Cherry, 2005, p. 62) both my own practice and, more importantly, the experience of the students I teach. Furthermore, the research has also helped me establish with more detail how FL both has and has not met the distributive values test that underpins my professional practice. As such, it has given me both insight into how to adjust my future practice and ideas for future research.

7. References

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8. Appendices

Appendix 1: Ethical Approval



Liverpool Hope University	
Ethical Approval Request only for research involving human participants who are NOT children (below 18) or vulnerable adults 1) For text-based projects not involving human participants, use the designated shorter request form rather than this one. 2) For projects involving children or vulnerable adult, use the designated longer request form rather than this one.	
SECTION 1 [TO BE COMPLETED BY THE RESEARCHER]	
1.1 Researcher For staff: Name: (For joint research conducted by staff, the names of all the researchers should be given with the Principal Researcher's name given in bold.) For students: Name, student ID, name of supervisor:	Irene Rose 15010544 Catherine O'Connell
1.2 Title of Proposed Project:	Students' and educators' experiences of learning and teaching in a flipped classroom model of blended learning
1.3 For students only: Programme Title and Level of Study (e.g. MA Education; Philosophy and Ethics Level H).	EdD
1.4 For staff only: Position held at Hope (e.g. Lecturer).	Professional Tutor in Disability and Education
1.5 Faculty and Department or equivalent : (for research involving two Faculties or Departments, please state both. The name first given should be	Disability and Education Faculty of Education

<i>that of the Faculty and Department whose DEL is being asked to approve.⁴)</i>	
1.6 Start date of proposed research (note: this must be later than the date at which approval may be given)	12 th April 2019
End date of proposed research	7 th January 2021
1.7 Professional guidelines referenced	BERA 2018

SECTION 2

NOTES ON ALL RESEARCH INVOLVING HUMAN PARTICIPANTS

Approval will be given by

(a) The University Research Ethics Sub-committee for

- research that may involve deceptive or covert activity
- empirical research into illegal activities
- research that may be connected to any aspect of national security
- and/or research deemed to pose a significant risk to the University's reputation.

The researcher should identify all such cases and refer them to their supervisor, who in turn will contact their Departmental Research Ethics Lead (DEL) for suggestions. The DEL will forward the application to the Faculty Research Ethics Sub-committee for consideration and, if necessary, for referral to the University Research Ethics Sub-committee

OR

(b) The Faculty Research Ethics Sub-committee for research involving children (under 18) or vulnerable adults and recommended by a Departmental Research Ethics Lead (DEL)

OR

(c) The DEL for research involving human participants but NOT children (under 18) or vulnerable adults.

OR

⁴ The University does not require double approval for shared research. Where the research is cross-Faculty, the researcher should seek advice from an appropriate person about which Faculty should be asked to approve.

(d) An authorized staff who for good reason cannot refer the request to a supervisor

NOTE: For projects not involving human participants, use the designated shorter request form rather than this one.

In all cases, initial scrutiny will be carried out by the supervisor or DEL, as appropriate.

Initial scrutiny consists of a careful reading of the request coupled with ensuring completion of the checklist given at the end of this form. This process may need to be iterative with the researcher*. When ALL responses are satisfactory, the initial scrutineer should complete the last section of the checklist and should send this form (and any associated documentation) on to the next stage of the process as explained at the end of the checklist.

*If ANY prompt cannot be given an acceptable response, the initial scrutineer should return the form to the researcher, clearly explaining the remedial action needed, and advising of a deadline for the form to be returned to the initial scrutineer.

Section 3. INFORMATION ABOUT PROPOSED RESEARCH STUDY.

Note: the checklist given at the end of this document should be completed by the researcher. The initial scrutineer may either add to it, or simply endorse it as agreed. A supervisor or DEL receiving a form without the checklist having been completed will return it to the supervisor (for student research) or the researcher (for staff research) for completion.

3.1GENERAL
a) Full title of the research project: Students' and educators' experiences of learning in a flipped classroom model of blended learning
b) Aims and objectives: The overall research inquiry aims to explore student experiences of the introduction of a flipped classroom model of blended learning into the Level I SEN course in the Network of Hope. At the practical level the research aims to establish a) what students found supportive of their study and learning, b) what barriers they faced and c) what other approaches (if any) they would like to see used. However, at a more theoretical level, the research also seeks to explore the affective dimension of students being made to adopt this mode of learning To this end, the researcher seeks ethical approval to conduct semi-structured telephone interviews with Network of Hope, Level I SEN students to explore their recent experiences of learning within the changed pedagogical approaches used in the 'flipped' blend of learning they have encountered this year. As a research inquiry for an EdD thesis, part of the inquiry also aims to explore reflections on professional practice, so approval is also sought to conduct a face-to-face interview with the researcher's colleague who teaches on the course.

In addition to the above, the researcher is also keeping a reflective research diary however, ethical approval is not required for this method.
c) Brief outline of the research study. Please ensure that you include details of the design (qualitative/quantitative, etc) as well as the methods and procedures(questionnaire, interviews, experimental trial, observation, etc). This research study is interested in human experience and feeling so is predominantly qualitative, situated within an interpretivist paradigm. As a lecturer in disability studies the researcher favours a critical realist ontology and social constructionist epistemology. The study follows an action research methodology and employs a phenomenographic approach. The methods being used in this research inquiry are: 1. individual semi-structured telephone interviews with student participants (invitation to participate to go to entire cohort of 52 students with a view to securing interviews with ten students – the six students who completed the exploratory on-line questionnaire [ethical approval 01/10/2018] and four other students); 2. an individual face-to-face interview with my teaching colleague (invitation to go to one colleague).
d) As mentioned under Section 2 (a), some types of research must be referred (by the Faculty Ethics Research Sub-Committee) to the University Research Ethics Sub-Committee. Therefore, please state here if your research involves or may involve deception, the use of covert methods, is into matters involving national security, is into illegal activity or might endanger the University's reputation. Please also highlight the key aspects which cause it to fall into one or more of these categories. The research does not involve investigation of any of the types described above.
e) Where will the study take place and in what setting? If in a workplace, or if the participants are from a workplace, identify what your connections are with that workplace. For the individual telephone interviews with student participants the researcher will be in her individual office in Liverpool Hope University using her work telephone and the interviewees will be in the place of their choosing (it is anticipated that this will likely be their home). After term has concluded, the researcher will interview her colleague about her reflections on teaching using the flipped learning approach. This interview is likely to take place in the colleague's office at Hope Park.
f) Give a brief description of your target sample (e.g. age, occupation, gender). All second year BA (Hons) Education Studies and Special Educational Needs students who are studying at the Network of Hope will be invited to participate in the study. The aim is to recruit ten students in total – including six students who completed an exploratory questionnaire at the beginning of term (approved 01/10/18). The sample is a convenience sample of male and female students whose ages range from approximately 20 – 55 years old. The specific occupations of all the students are unknown but typically, students are employed in teaching support roles across nursery, primary, secondary and further education. The interviewee who is the researcher's colleague is a female lecturer in Disability Studies in Education and is approximately 50 years old.

g) Is the participation individual or as part of a group? Individual
h) How will participants be selected, approached and recruited? Clearly identify and fully analyse any issues of power relations that might arise, and say what steps will be taken to alleviate them. This applies particularly if the location of the research is a place of the researcher's employment, or if they have other strong links with the participants. The sample being used is a purposive and convenience sample of students and staff that the researcher has access to through her role as NoH professional tutor in the department of Disability and Education and year lead for NoH level 5. Due to this, several issues arise relating to power relations regarding her position in relation to the students on the course and her colleague. The concerns regarding power relations that have different dimensions pertaining to the two participant types (student and colleague) are dealt with below. However, the two participant types share similarities in regards to power relations when it comes to the need to minimise any harm, distress, disadvantage, embarrassment or anxiety that may arise in relation to participating in the research (see BERA 2018, p.19). To alleviate these potential anxieties, every care will be taken to ensure participants are treated respectfully, including communicating that their contributions are appreciated and that the research adheres to BERA <i>Ethical Guidelines for Educational Research</i> (2018). It is acknowledged that given that the researcher is the year lead for all potential student participants and tutor for two thirds of the student sample, participants may feel compelled to complete the research and/or experience anxiety about 'getting it right' or choosing not to participate. However, in accordance with BERA guidelines (2018, p.18), student participants will be reassured of their right to decline to participate or to withdraw from the research without consequence. Given that the researcher and her colleague are friends, this also applies to the researcher's colleague. However, constructing and conducting the research in line with BERA guidelines (2018) ensures transparency (BERA, 2018, p.16) and the right to withdraw without consequence (BERA, 2018, p. 18). Thus care has been taken to ensure that all participants feel secure in the integrity of the research and will feel comfortable participating in the research or, should the need arise, withdrawing from the research without any ramifications. This information will be included on the information sheet given to participants to read before they give their written consent to participate. Further consideration of the power relations that may arise between the researcher and her colleague cover intrusion, inconvenience, resentment and professional embarrassment. These issues relate to the researcher's responsibilities as year lead for Level 5 instituting a change in curriculum delivery that is also acting as the focus of her EdD research (see BERA, 2018, p. 6-7). In the planning and execution of this curriculum change the researcher must take into account the 'rights and interests' and needs of her colleague (BERA, 2018, p.7). Nevertheless, despite acknowledgement of these ethical concerns, it has not been considered necessary to obtain ethical approval for the curriculum change itself, nor consent from the researcher's colleague to undertake this curriculum change. This is because the researcher's colleague is part of the teaching team for NoH Level 5 and this change would have gone ahead with or without this research inquiry. Likewise, the researcher's colleague is not in a position to 'withdraw' from her teaching role. However, it is necessary to seek informed consent from the researcher's colleague when asking her to participate in an interview reflecting on her experience of that change. In addition to the above, as this research follows an action research methodology it is noted that ethics 'underpin' (Balogh, 2018 cited in Norton 2019, p.189) this inquiry. Furthermore, it is also noted that when it comes to practitioner inquiry in universities "everything's ethics" (Cochran-Smith and Lytle, 2007 p.24). As 'insider research', practitioner action research

requires 'deep' ethical analysis and constant review of the ethical dimensions of decision making (Balogh, 2018 cited in Norton 2019, p.190).

Therefore, in addition to adhering to BERA ethical guidelines, careful consideration has also been given to the ethical dimensions of power relations in this enquiry. In particular, how these dimensions pertain to the fact that the majority of the research participants are also students whose work will be marked by the researcher. To this end, the researcher has taken the decision to ensure that all course marking will be completed before the interviews take place. Only exam scripts will be left to mark and these are marked anonymously. This decision will be communicated to student participants to help assuage any fears they may have about feeling compelled to participate in the research or self-censoring their contributions because of any effects it may have on their marks.

Further to this, the researcher will build into the inquiry the opportunity to check participants' feelings regarding the effect of them taking part in the research (Balogh, 2018 cited in Norton 2019, p.190). This will be done through participant validation, allowing participants to read their interview transcripts, to check for accuracy and resonance with their experiences (Birt et al, 2016, p.1802).

Being open and transparent about the research purpose and aims, and being cognisant of returning to check participants' feelings and experiences of being part of the research through 'member checking' is good ethical practice. However, more often than not it is impossible to cover all ethical issue relating to a research inquiry in advance. Indeed, research with humans constantly requires the researcher to make situated judgements that may require deliberation of decisions that encompass 'diverse and potentially conflicting' ethical positions (Hammersley and Trauanou, 2012, p6). Likewise it is recognised that ethical dilemmas in practitioner action research are commonplace and built into the power structures of this methodological approach in educational research (Balogh, 2018 cited in Norton 2019; Cochran-Smith and Lytle, 2007; Hammersley and Trauanou, 2012). Given these circumstances, the best a researcher can do is commit to being vigilantly aware of the far reaching and myriad ethical dimensions in their research by taking a reflexive stance in their research practice while they develop their ethical literacy (Sachs, 2007, p.11). In this research inquiry, this reflexive stance is realised and recorded through the researcher's research diary.

Recruitment

Details of the recruitment process for each research method are given below:

Telephone interviews - students: All students will be invited to participate in the telephone interviews. Students will be recruited via an initial email request (and potentially one follow up reminder) sent to the entire cohort. Information sheets and consent forms will be sent with the email. This will afford potential participants the opportunity to ask questions by email.

As per emails used in the exploratory research for this inquiry, to encourage students to acknowledge the emails the invitation will be sent from the researcher's regular work email address rather than through Moodle or the researcher's student account. While this decision has implications regarding the power communicated through an email from the Head of Year as compared to a Post Graduate Research student, nevertheless this decision has been taken to minimise confusion for both the researcher and participants, and to ensure that recipients recognise whom the email is from.

Sending out information sheets and consent forms electronically will allow students to decline to participate in private without their peers' knowledge.

The email will also invite participants to ask any questions they wish via email in the first instance but also by telephone by request. Consent will be obtained by participants typing their name on the form and returning it via their student email.

Face-to-Face interview – colleague:

Given that the researcher's colleague teaches on the course with the researcher, she has been fully aware of this inquiry from its inception and has already indicated her willingness to be interviewed. However, the researcher will make this consent official via an email invite that follows ethical protocols and has the information sheet and consent form attached for return by email. As this interview is face-to-face, the researcher will also collect a hard copy signature from the participant on the day of the interview.

i) Free and informed consent and the right to withdraw at any time are indispensable.

Is written consent to be obtained? Please delete as appropriate **YES**

If **YES**, please complete the appropriate sections of the standard Consent Form(s) and the accompanying Research Information Sheet(s) that can be found at the end of this documentation.

If **NO**, please state *why*. As free and informed consent is essential, you need to give strong and convincing reasons for not obtaining informed consent.

How will the participants' right to withdraw be ensured?

A statement of the participant's right to withdraw is on the research information sheet (see below) emailed to the participants before they agree to consent to participate in the research.

Each participant will also be given a copy of the Liverpool Hope University consent form (see below) which includes a statement of the participant's right to withdraw.

For the individual telephone interviews, participants will be emailed the consent form and should they wish to withdraw they will be able to inform the researcher by return email. Likewise, at the start of the interview, participants will be reminded of their right to decline to answer any questions or stop the interview. They will also be reminded that they will be sent a copy of the interview transcript to review.

For the individual face-to-face interview the researcher's colleague will also be emailed a consent form so that should they wish to withdraw they would be able to inform the researcher by email in her capacity as a researcher, rather than a colleague. This process is designed to help alleviate any discomfort or embarrassment that may arise for the researcher's colleague should they wish to exercise this right. In addition, as above, at the start of the interview, the researcher's colleague will be reminded of their right to decline to answer any questions or stop the interview. They will also be reminded that they will be sent a copy of the interview transcript to review.

In both of the above scenarios, a date will be given by which it will be no longer possible to withdraw data (see consent form below).

3.2 Risk & Ethical Procedures

Please note: all studies with human participants have the potential to create a level of risk. "No risk" is thus not an acceptable answer, although "Minimal risk" is. You are fully responsible for the protection of both yourself and your research participants. Please try to anticipate the context and perspective of your participants when completing this section.

a) What potential risks are there of physical harm to participants? Please specify, and explain any steps you will take to address them.

There is minimal risk of physical harm to participants, as they are only required to undertake activities that are similar to the ordinary activities they do in day-to-day life i.e. using the telephone or being a tutor i.e. participating in reflective discussion with a colleague. As the student participants are likely to be contacted on their mobile phones, to ensure minimal risk of physical harm (e.g. if they are outside and/or walking around or

driving) at the beginning of interview the researcher will check that it is convenient and safe for them to take the call and do the interview.

For the telephone interviews, participants may choose where they are and the face-to-face interview will take place in Liverpool Hope University which is compliant with health and safety regulation.

b) What potential risks are there of psychological harm to participants? In particular, how might participation in this research cause discomfort or distress to participants? Please specify, and explain any steps you will take to address these issues.

In line with BERA (2018) ethical guidelines, every care will be taken to minimise the risk of psychological harm to participants.

The nature of all the research activities and topics being discussed invite self-reflection and the researcher is cognizant that part of the reflective disclosure that may occur in discussion may cause feelings of discomfort, embarrassment and may risk lowering a participant's self-esteem. As part of the researcher's data production activity schedules, the researcher will ensure that regular attention is given to assessing participants for any signs of discomfort or distress. If this situation should arise the researcher will 'immediately reconsider any actions occurring during the research process that appear to cause emotional or other harm, in order to minimise such harm' (BERA, 2018, p.19). For example, by offering not to continue the interview and giving student participants the contact details of Student Support and Well Being or the researcher's colleague the staff counselling service leaflet. The researcher recognises that in all situations, participants' well-being is more important than the researcher's need to produce data.

For the one-to-one interview there is the risk of potential psychological harm for the researcher's colleague as her colleague may take offence or experience discomfort, distress or embarrassment due to the change in power dynamics involved in the researcher taking on the role of interviewer. To lessen the chance of this happening the researcher will take due care and attention in planning the interview, drawing upon relevant research texts and journal articles to construct a sensitive and respectful interview schedule, with due consideration given to the participant's perspective. However, it is noted that in accordance with Karnieli-Miller, Strier and Pessach (2009), participants gain power and control in interviews due to being positioned as the holders of the data the interviewer seeks. Thus, the researcher must be cognizant not to react against this power transference and must ensure they allow participants to answer as they wish and refrain from either leading participants to say what the researcher seeks to hear and/or rewording answers for clarification in a leading manner.

As stated above, at the beginning of all the interviews participants will be made aware of their right to not answer and to withdraw without recourse. This should lessen any sense of requirement to continue should any feelings of ill ease arise.

c) Are there any risks to you as the researcher (and / or your co-researchers, if you have any) in this project? If so, outline the steps you will take to minimise them.

The physical risks to the researcher and facilitator are minimal as the research is conducted using equipment and means employed in the working life as a university lecturer. Likewise, the telephone interviews and face-to-face interview will take place within the researcher's ordinary workplace so risks are minimal for that aspect of the research.

There are more significant risks of psychological harm to the researcher when conducting both types of interview. As the researcher is responsible for the curriculum structure and delivery across the course they may be distressed to hear anything negative about the group's or her colleague's experiences. This may be particularly acute if the researcher is personally acquainted with the interviewee (which is a statistical likelihood for student participants and a given with her colleague). Vice versa, it may also cause her distress to know she has created a negative experience for certain students precisely because she does not know them and therefore was not aware of their personal circumstance or preferences. However, the researcher accepts and is prepared for this research to uncover perspectives that would give her cause for deep reflection. Furthermore, the researcher has over 10yrs of experience as a university tutor is used to accepting the short-term discomfort that can be caused by feedback (especially when it is aimed at their own practice).

In relation to her colleague participant, this matter was discussed with the researcher's colleague as part of the course planning activities and again, such criticisms have arisen before as part of department reflective and planning days. The researcher will make use of her research diary to reflect upon the potential for harm as a method of minimising any potential harm that may arise

Related to the above there are also potential psychological risks to the researcher associated with conducting a one-to-one interview with her colleague because both of them will be in unfamiliar roles during the interview and will experience and have to navigate a change in power dynamic. In this respect, the researcher is cognisant of her role as researcher and will be sure to align herself with this role. Preparing an interview schedule will help in this regard. This should allow for any discomfort or annoyance felt at any perceived criticism offered of the curriculum change or the way the researcher has conducted it, to be heard without the researcher taking offence. However, should offence occur, the researcher will explore it in her research diary and/or seek the counsel of her supervisors.

The researcher also recognises that part of her reflective process in the research allows for her to be disheartened either by the amount or type of responses garnered. However, she trusts in the reflective process that situates disagreeable feelings as necessary to constructing substantive personal understanding and professional growth.

Finally, there are psychological risks to the researcher due to the stress that can accompany trying to produce good quality research. However, this can be minimised through good time management and recognition that the researcher is a neophyte researcher and therefore some elements of the research process will necessarily be a learning experience.

Should any aspect of the research process prove unsettling for the researcher she will seek advice from her EdD supervisory team.

d) How might participants benefit from taking part in this research?

Participants' experiences as returning adult students who have completed one year of the course situates them as experts in regards to this research topic and as such, they may gain satisfaction from sharing their expertise to contribute to this project.

Also, as level 5 students it will be useful for them to have experience of being research participant that they can reflect on when it comes to constructing their own research for their dissertation in level 6.

The researcher's colleague may benefit from taking part by sharing her expertise and having a chance to reflect on her practise.

- e)** Does any aspect of your research require that participants be naïve (*i.e. they are not given full or exact information about the aims of the research*)? Please explain why and give details of the debriefing procedures you would use when the need for the naiveté is over.

The research does not require participants to be naïve.

3.3 Data Security, Confidentiality, Anonymity and Destruction

- a)** Where and how do you intend to store any data collected from this research? Give details of steps you will take to ensure the **security** of any data you collect.

Note that data protection regulations stipulate that data must be stored securely and not be accessible or interpretable by individuals outside of the project. Hence, data should be stored in a password-protected file on a password-protected device such as a desktop or laptop, and not on easily movable devices such as USB keys or CD ROMs.

Reflecting BERA stipulations (p.25) all data from this project will be downloaded and stored on a password-protected file in my I drive on my work computer that is also password protected. This includes audio files and word documents.

If any consent forms are completed in hard copy they will be stored in a locked cabinet in my office in Hope Park to which only I have the key.

- b)** What steps will you take to safeguard the **confidentiality and anonymity** of personal records?

Participants are not required to disclose any personal information that may be used to identify them individually therefore, in this respect individual anonymity should be assured. However, it is acknowledged that it may be difficult to be certain that some disclosure will not occur e.g. if a participants mentions attributes of their children that are unique to their particular children. To ensure that participants are happy with the level of anonymity achieved in the data they will be given a copy of their interview transcripts to review so they will have the opportunity to request any elements be removed.

No specific demographic information about participants is being collected for this inquiry.

As acknowledged in BERA (2018, p.21, section 41) anonymity may not always be possible. For instance, it may not be possible to secure anonymity for the researcher's colleague to those in our professional and research peer groups.

Nonetheless, to support anonymity as far as it is possible, following BERA (2018) data will be anonymised in analysis and before use in presentation or publication.

Confidentiality will be assured as the original data will only be seen by the researcher and (if necessary) the researcher's supervisory team, for which access permission will be included on the consent form (see below).

As noted in a), all data will be kept appropriately secured.

The researcher will take care to ensure that the results arising from data analysis will be reordered and represented in such a way as to ensure anonymity is not breached.

c) Will this research require the use of any of the following (please delete as appropriate):

Video recordings	NO
Audio recordings	YES
Photos	NO
Observation of participants	NO

If you answered YES to any of the above, please provide a more detailed explanation of how you will ensure confidentiality and anonymity.

The telephone interviews will be conducted using the loudspeaker function on the researcher's work telephone with recording being done on a digital voice recorder. The face-to-face interview will also be recorded on the digital voice recorder. Immediately after each interview the data will be transferred to the researcher's secure I drive and will be deleted from the portable digital device.

As recognised in BERA (2018,40- 41) while, the anonymous treatment of participants' data is expected it may not always be guaranteed as inferences may be drawn by those who know the researcher and their work or who those who know participants. However, following BERA guidelines (2018) to maximise the chances of anonymity all data will be anonymised in analysis and before presentation or publication. Likewise, care will be taken to ensure that the data from student participants is not presented in such a way as to allow either of the individual colleges or members of their student cohort's to be identifiable.

It is also acknowledged by BERA (2018) (and in b above)that given our communities knowledge of our working practice, ensuring the anonymity for the researcher's colleague may be more difficult to achieve. However, to take account of this the researcher will discuss this with her colleague prior to starting the interview and will offer her colleague rights to check and request edits to the transcripts and any subsequent research outputs.

Regarding confidentiality, as noted in a) above, all data from this project will be downloaded and stored on a password-protected file in my I drive on my work computer that is also password protected. This includes audio files and word documents.

If any consent forms are completed in hard copy they will be stored in a locked cabinet in my office in Hope Park to which only I have the key.

d) Please confirm that you will destroy all personal data and indicate at which point you will do so.

For staff: A date should be provided. For certain types of research, it is acceptable for destruction of anonymised data to be indefinitely deferred. This must be clearly declared in the Research Information Sheet.

No original data will be retained beyond 7th Jan 2021. Destruction of anonymised data will be indefinitely deferred in order that the project can inform future developmental work within the department.

4 For students only: Supervisor's comments

(Please note that applications submitted without supervisor's comments will not be considered.)

Irene has responded fully to comments on earlier drafts of the ethics application. The issues regarding power relations and confidentiality have been considerably elaborated and handled with considerable nuance.

Supervisor's name: Catherine O'Connell

Date: 2 April 2019

Blank Research Consent Form and Research Information Sheets are appended. Please ensure you complete the relevant forms, and delete any that are not required.

Note 1

The question of when childhood is deemed to end, such that mentally capable young people can themselves give free and informed consent without needing parental consent, is much discussed, and to some extent depends on the reason why the consent is being sought. As a precaution the University takes the age of personal consent for research participation as being 18, and this should be applied throughout. Only if ALL participants in this research are over 18 should this form be used.

LIVERPOOL HOPE UNIVERSITY

RESEARCH CONSENT FORM

(All Interviewees)



Title of research project: Students' experiences of learning and teaching in a flipped classroom model of blended learning

Name of researcher: Irene Rose

I confirm that I have read and understand the information sheet for the above research project and have had the opportunity to ask questions.

Ye	N
s	o

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.

Ye	N
s	o

Yes	No
-----	----

I agree to the interview being audio recorded

I agree to take part in this research project and for the anonymised data to be used for the purposes of doctoral research, potential publication and professional development.

Ye	N
s	o

I agree that, if necessary, the researcher's supervisory team may access the researcher's original data to verify her analysis.

Ye	N
s	o

Name of participant:

Signature:

Date:



LIVERPOOL HOPE UNIVERSITY

RESEARCH INFORMATION SHEET (Telephone interviews– student participants)

Outline of the research

This research explores students' experience of accessing and using learning support materials designed for use in a 'flipped classroom' model of blended learning

Who is the researcher?

Name: Irene Rose

Institution: Liverpool Hope University

Researcher's University email address: rosei@hope.ac.uk

What will my participation in the research involve?

Answering questions about your experience of studying at Level I

How long will it take?

Interviews are scheduled to take 45 minutes.

Will there be any benefits to me to taking part?

Your experience as a returning adult student who has completed Level C situates you as an expert in regards to this research topic and as such, you may gain satisfaction from sharing your expertise to contribute to this project.

Likewise, I will use responses given to reflect upon my professional practise so you may gain satisfaction from knowing you have given feedback that enables me, as your tutor, to reflect on my practice.

Also, as a Level I student it is useful for you to have an instance of being a research participant that you can reflect on when it comes to you constructing your own research for your dissertation in Level H.

Will there be any risks to me in taking part?

There are minimal risks associated with taking part in this research. Aspects of these minimal risks are physical and psychological and are explained below.

Physical: The interview will take place by telephone so you will take the call in a place of your choosing. The researcher will check at the beginning of the call that it is convenient for you to proceed and will not pose any risk to you i.e. by causing a distraction if your are taking part in another activity such as walking or driving. If it is not convenient to take the call the interview can be cancelled or re-arranged.

Psychological: As part of the research, you are asked to reflect on your experience and to respond to questions about that experience. However, you are not obliged to answer the questions and we can stop the interview at any point you wish.

What happens if I decide that I don't want to take part during the actual research study, or decide that the information given should not be used?

In accordance with BERA ethical guidelines (2018) all participants are free to withdraw and have their contributions removed from the research at any point up to the data being analysed and represented without consequence.

Should you wish to withdraw, you may email the researcher and request to have your contributions removed from the research.

In addition, as part of the research process, you will be given an opportunity to read your interview transcript and may request any elements be removed. Your transcript will be sent to you within two weeks of your interview taking place. You will then have two weeks to review and return the document with any amendments you wish to be made.

However, please note that once the data has been analysed and represented it will no longer be possible to pinpoint individual contributions to have them withdrawn.

Therefore, the cut-off date for withdrawal is 3rd June 2019.

How will you ensure that my contribution is anonymous?

As an interviewee your identity will be known to me however, BERA ethical guidelines (2018) will be adhered to and you may be fully confident that I will keep your identity and contributions confidential and anonymous. I will ensure your

anonymity by making sure that no indicators that may be used to identify you will be present in any representation of the data.

How will the data I produce be protected?

In accordance with General Data Protection Regulation (2018) and BERA (2018) all data will be stored securely on a password protected computer and will only be accessible to me and, if necessary for verifying my analysis, members of my EdD supervisory team.

All original data collected will be destroyed on 2nd Jan 2021.

Please note that your confidentiality and anonymity cannot be assured if, during the research, it comes to light that you are involved in illegal or harmful behaviours that I may need to disclose to the appropriate authorities.



LIVERPOOL HOPE UNIVERSITY

RESEARCH INFORMATION SHEET (Face2Face interview - colleague)

Outline of the research

This research explores students' experience of accessing and using learning support materials designed for use in a 'flipped classroom' model of blended learning

Who is the researcher?

Name: Irene Rose

Institution: Liverpool Hope University

Researcher's University email address: rosei@hope.ac.uk

What will my participation in the research involve?

Answering questions about your experience of teaching Level I in the Network of Hope

How long will it take?

The interview is scheduled to take one hour

Will there be any benefits to me to taking part?

As a practitioner you may enjoy sharing your expertise and having a chance to reflect on your practise.

You may derive satisfaction from knowing that your contributions are likely to influence future curriculum development.

In addition, I will use the interview discussion to reflect upon my professional practise so you may gain satisfaction from knowing you have given me feedback that enables me to reflect on and develop my practice.

Will there be any risks to me in taking part?

There are minimal risks associated with taking part in this research. Aspects of these minimal risks are physical and psychological and are explained below.

Physical: The interview will take place in your place of work (Liverpool Hope University) and therefore the interview environment is compliant with health and safety regulations.

Psychological: As part of the research, you are asked to reflect on your experience and to respond to questions about that experience. However, you are not obliged to answer the questions and we can stop the interview at any point you wish.

What happens if I decide that I don't want to take part during the actual research study, or decide that the information given should not be used?

In accordance with BERA ethical guidelines (2018) all participants are free to withdraw and have their contributions removed from the research at any point without consequence.

Should you wish to withdraw, you may email the researcher and request to have your contributions removed from the research.

Also, as part of the research process, you will be given an opportunity to read your interview transcript and may request any elements be removed. Your transcript will be sent to you within two weeks of your interview taking place. You will then have two weeks to review and return the document with any amendments you wish to be made.

However, please note that once the data has been analysed and represented it will no longer be possible to have your contribution withdrawn.

Therefore, the cut-off date for withdrawal is 7th Oct 2019.

How will you ensure that my contribution is anonymous?

As an interviewee your identity will be known to me however, BERA ethical guidelines (2018) will be adhered to and you may be fully confident that I will keep your identity and contributions confidential and anonymous. I will ensure your anonymity by making sure that no indicators that may be used to identify you will be present in any representation of the data.

How will the data I produce be protected?

In accordance with General Data Protection Regulation (2018) and BERA (2018) all data will be stored securely on a password protected computer and will not be accessible to will only be accessible to me and, if necessary for verifying my analysis, members of my EdD supervisory team.

All original data collected will be destroyed on 2nd Jan 2021.

Please note that your confidentiality and anonymity cannot be assured if, during the research, it comes to light that you are involved in illegal or harmful behaviours that I may need to disclose to the appropriate authorities.



**CHECKLIST FOR RESEARCH ETHICS APPROVAL REQUESTS
(STAFF OR STUDENT)**

Name of researcher: Irene Rose

Date completed: 01/04/2019

For use by staff or students to help improve the Ethics Approval request before submission

For use by supervisors before completing the Supervisor comments section of the form. If you cannot answer 'Yes' to every prompt, please discuss with, or return the form to, the student.

Checklist completed by: Catherine O'Connell

Date: 2 April 2019

PROMPT	See form:	Yes/No
1 Start-date is after date of scrutiny	1.6	Yes
2 Appropriate professional guidelines are identified	1.7	Yes
3 Informed consent is being sought from ALL relevant parties and Consent Form(s) and Research Information Sheet(s) are included.	3.1.i, end of document – Research Information Sheet(s) and Consent Forms. Check that they match.	Yes

4 Power relations are clearly defined and discussed and appropriate steps to address any issues are set out	3.1 e and 3.1. h	Yes
5 Risk to research subjects is adequately discussed and addressed. 'No risk' is not an acceptable response, although 'minimal' is. <i>Note that if questionnaires or interviews are involved, part of the assessment of risk is linked to the questions to be asked. It is therefore helpful if these can be attached, or at least if there can be as full information about them as possible.</i>	3.2 a–c	Yes
6 Risk to the researcher is adequately discussed and addressed	3.2 d	Yes
7 The right to withdraw is explicit and fully thought through in this Request Form. The Inform Consent Forms the Research Information Sheet(s) contain further information. It might be necessary for the researcher to give quite detailed information about HOW participants can withdraw and how possible psychological harm could be avoided.	Often discussed under 3.1 i	Yes
8 Anonymity is adequately dealt with in the Request Form and is confirmed in the Research Information Sheet(s)	3.3	Yes
9 Confidentiality is adequately dealt with in the Request Form and is confirmed in the Research Information Sheet(s)	3.2 b	Yes
10 Security of information is adequately dealt with in the Consent Form and is confirmed in the Research Information Sheet(s)	3.3 a	Yes
11 Destruction of information is adequately dealt with in the Request Form and Research Information Sheet(s)	3.3 d	Yes

For students: destruction of the data should not be made dependent on successful completion of the research project. An expression such as 'when my studies are complete' covers all eventualities.		
For staff: it is acceptable for staff research to have a 'never destroyed' statement, but this must be transparent in the Research Information Sheet(s) and Consent Form(s).		
12 The research is NOT into illegal activities	2.a & 3.1. d Likely to be buried in the narrative	Yes
13 The research does NOT employ deceptive or covert methods, such as to negate or impede the ability of the participants to give informed consent.	2.a & 3.1. d Likely to be buried in the narrative	Yes
14 The research HAS NO interaction with issues of national security	2.a & 3.1. d	Yes

Note that if any of the last three prompts indicates that the problem scenario is present, the request will not necessarily be refused, but it will need to be sent (by the Faculty Sub-committee) to the University Sub-committee. Please flag this up when sending the form to the Faculty Sub-committee, but it would be helpful if you also completed the rest of the checklist.

APPROVAL

Please select A or B, as appropriate. Delete the other.

A: For STUDENT RESEARCH – to be completed by the DEL:

I APPROVE the research and it may begin immediately. Any improvements listed below (or as communicated – please make clear) should be made and incorporated in your completed work.

Name:

Role (i.e. supervisor or a different DEL acting in lieu of supervisor): DEL

Date: (must be earlier than proposed start date):

B For STAFF RESEARCH – to be completed by the DEL:

I APPROVE the research and it may begin immediately. Any improvements listed below (or as communicated – please make clear) should be made and incorporated in your completed work.

Name: Jane Brie

Role – Departmental Ethics Lead

Date: (must be earlier than proposed start date): 11th April 2019

Addendum: Regarding the dates given on this form, extension of the ethical approval has been reviewed in Annual Monitoring Review meetings and granted in conversations with the Chair of the Liverpool Hope University's Ethics Committee.

Appendix 2: Interview schedule for the pilot interview

Interview Schedule for Pilot Interview

Student's Experience of a Flipped Learning delivery of Blended Learning

Introduction – Thanks – Sound check -

– Explanation (1. Blended Learning: 3 hours f-2-F and 3 hours guided tasks/ Virtual Learning Tasks
2. Flipped Classroom: a model of learning where tutors use technology to deliver course content to students before class to allow class time to be spent doing activities in class)

– Expertise – Right to Stop / Withdraw

ORIENTATION: Focus on change and feelings. Remember the Announcement of change? What did you think?

Focus on Moodle

Can you describe what it was like to getting used to accessing and using the videos on Moodle?

When?

How often?

Where?

Focus on Class Room Activities

Have you noticed a change? How would you describe it?

From the questionnaires I did certain responses came up regarding.

Issues with Other Students not preparing for class?

Overall- What would you say is good about the flipped model you have been using and what would you say is bad?

Appendix 3: Interview schedule for research interviews

Interview Schedule for Research Interviews

Student's Experience of a Flipped Learning delivery of Blended Learning

Introduction – Thanks – Sound check - The interview is being recorded

– Expertise – Right to Stop / Withdraw – Transcript to read.

Explain my researcher role: Now in this interview I am going to be taking on a RESEARCHER role so it might be strange for you cos I am not going to be as chatty as I usually am, as I have to be as NEUTRAL as possible. But that is to give you the space to think and be free to answer as you want. So, if you make a comment I won't put forward solutions but of course I will take any feedback into consideration when I put my tutor hat back on.

So, there are going to be 4 questions about your experience learning via flipped learning, how you felt about it and what you think it is. So, if you are happy with everything we can start:

- 1. What was your experience of/Please would you describe your experience of learning in a flipped classroom model, that's the way you have been taught on SEN this year?**
- 2. How did learning in this way make you feel?**
- 3. Having learned in this way, what do you think the purpose of flipped learning is?**
- 4. Is there anything else you would like to say about learning in this way?**

Appendix 4: Extract of reflection on first three interviews

Reflection on Interview 1 10/07/2019

Generally great. First interviewee explained that she has an impairment and this style helps her.

I interrupted TWICE and cut her offGrrrr. I think because I felt she hesitated and then in a nano second I realised that she was probably just pausing before she went on.

I froze at shifting to the second question 😞 I blustered a lot but recovered and no one died so yay ho ;)

Also, and this was BAAAAAD...I mentioned Education and asked her to do a direct comparison. That was unethical of me. I felt I put her in an awkward position as if I was asking her to tell tales on Jo 😞

I really feel like I want to apologise to her for doing that 😞 I will do in the next interview ☺

Also, I really need to talk LESS!!! (And WAAAAAY slower. In trying to build rapport and make her feel at ease I was WAAAAAY too chatty and dominating :/ **And** I should have concluded by wishing her good luck with her son getting a diagnosis.

Need to ask participants to think about the differences between LAST YEAR and this year NOT Education and SEN. OR rather to think about their educational environment last year (what they did, where they were and when they did it) and THIS year.

Reflection on Interview 2 11/07/19

Whaaaaaaa! Talked WAAAYYYY to much and stuttered and blustered my way through it :/ Especially at the beginning... I just didn't seem to be able to speak :P And then I talked at 100 miles an hour AND kept rephrasing what the interview had said. It seemed to cause a lot of pressure because I knew her and I TOLD her that!! D'Oh! She was great though. She gave long and thoughtful answers. I did feel I slipped into the too supportive and encouraging mode that Lin talked about i.e. said 'excellent' and 'very interesting' too much. Deffo ventured into feedback on the course rather than an interview on a topic. Good to know that I can try to make sure I capture that to nip it in the bud next time.

Also, I did end up using a question – re learning environments - that I had thought about after interview 1. There seems to be a definite tension in keeping to the questions and developing the original intent of the QUESTIONS when probing Vs developing the conversation by building on what the participant has said. Likewise, I did seem to paraphrase too much when confirming/probing. I definitely tended to be doing analysis 'in situ'. Nevertheless, in both interviews I have been sure to give the questions so that the immediate response can be recorded.

Reflection on Interview 3 12/07/19

I was definitely calmer this time. I did not know the student so perhaps that helped. Again, I did a lot of paraphrasing to check meaning and also, we did seem to end up doing a lot of chatting about being a student and the course in general. However, I feel OK about this. After all, you cannot simply ask interviewees to stay on subject. There has to be some leeway in allowing them to lead the discussion and for you to respond to that as a human being.

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Appendix 7: Explanation of the use of “higgledy-piggledy”

In explaining the use of the phrase “higgledy-piggledy”, in the interview the participant compares and contrasts both the SEN first year and second year curriculums and teaching, as well as the second-year teaching practice of on their combined honours subject. When asked to describe their experience of FL they responded:

Well I found it a bit different this year compared to last year. I felt like that this year was a little bit, what's the word to describe it, not difficult but just a little bit more strange in a way. Because last year we learnt all about the different models and stuff. Whereas this year I thought it was a little bit higgledy piggledy if you understand what I mean. I did really enjoy it. But I think sometimes it would be better if it was more of a... We got told a lot more, so there was loads of information in some lessons and we just wrote everything down. It's hard to describe really. Right, in [combined honours subject] sorry, we sort of, some lessons we'd just sit there and we'd be writing information. And it would be a lot easier to understand if it was right in front of you. (6)

Furthermore, in the proceeding effort to obtain clarification from the participant they go on to note that they understand that second year “gets harder” but state their preference for “being told”, “writing everything down” and the benefits of having information “thrown” at them (6). Thus, the participant's perception is derived from across the curriculum, the pedagogic approach and the teaching methods chosen. Therefore, the decision was made to take this perception as pertinent to the participant's perception of FL while acknowledging that this explanation of this decision should be noted.

Appendix 8: The first iteration of the categories of description demonstrating thematic analysis not phenomenographic analysis

Themes derived from the data to make the first 'categories of description'.

Flipped learning is about:

- A. Multi-modality
- B. Dual Focus
- C. Independent learners
- D. Emotional experience
- E. Judicious use of time
- F. Being prepared

As it transpired, this was merely a thematic analysis that constituted the first iteration in the construction of the categories of description.

To have stopped the analysis here would have not done justice to the richness and complexity of the experience expressed in the data. This was only achieved when the data was put through the process of constructing and correlating the unit of experience and dimensions of variation.