# Little stories and big pictures: quality education addresses social and economic inequality for the visually impaired locally and globally

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## INTRODUCTION

The role of teacher education has a long history of supporting some, if not all, of the 17 global goals set forth by the United Nations for 2030. Although particular populations are not named in the SDGS, attending to disability groups is requisite in a just world. People who are visually impaired (VI) are 'one of the greatest untapped labor resources' (Lynch, 2013, p. 408) and some schools may (albeit unintentionally) miss opportunities to impact local communities, change business practices and societal norms that exclude those who are visually impaired. Unemployment across VI communities and barriers to socialising activities leading to isolation are found in statistics across the developed world (Lynch, 2013; Vision Australia, 2007), and are significantly worse in the poorest and developing countries. It is against this backdrop St. Vincent's School established the 'village' concept where individual pupils could develop their own 'flight paths' by connecting formal National Curriculum lessons with an enriched curriculum attached to their interests and aspirations. In this paper, we reflect on the critical role of building-in the engagement of community with education and the sharing of best practices with new generations of educators. St. Vincent's School created an 'education and enterprise' village that draws learning communities together with a common goal: to widen employment and friendship opportunities *with* VI pupils. It is this *quality education* (SDG 4) we seek to share with VI (and other disability) communities to reduce unemployment and access to education inequalities (SDG 10) and thus achieve SDG 8 *decent work and economic growth* for and from such (connected) learning communities.

## THE EDUCATION AND ENTERPRISE VILLAGE

The concept of an education and enterprise village is based on social science theories which posit that social capital is generated from interwoven networks of social activity that have been shown to decrease poverty, spread empowerment, and deepen inclusion whilst enhancing autonomy and participation (see Bourdieu, 1986; Coleman, 1988). Essentially, social capital is about how people interact with each other (Dekker & Uslaner, 2001)

and is best understood within the context of the 'village' through Bourdieu's concept of 'habitus' and 'field' (1977, 1993). A key component to the village concept, as it applies to our case studies, is a space where VI pupils can explore their creative ideas within their own context on a level field alongside peer 'linked' reverse inclusion and service learning learners. A key to success is finding 'what works' (Kerr, 2009, p. 12) within project based learning for the linked individuals, where the common goal is enhancing VI skills towards employment and the increasing of friendship groups. The 'village' concept where we are all teachers and learners (Gramsci, 1971) generates learning spaces where creativity can flourish.

At St. Vincent's the education and enterprise village is an integrated system of multiple approaches, specifically Information and Communication Technologies (ICT), reverse inclusion, and service learning. We live in an ever increasingly connected world that challenges ways we communicate, practice inclusion, and engage in service, which impact our mental health and wellbeing as well as our engagement in physical activity and academic endeavours. In our digital world, education in the United Kingdom over the last twenty years has sought to keep pace by connecting our children through ICT. In our social world policy makers, educators, parents, and pupils have varying perspectives and experiences of inclusion and integration, particularly along the lines of ability. The concept of reverse inclusion/reverse integration (RI) has students without special needs in scheduled activities work alongside children with special needs, but within the safety net of familiar surroundings for the disabled pupils (Schoger, 2006). Research in Israel shows that participants with disabilities who participated in a reverse-integrated wheelchair basketball program showed increases in perceived ability, quality of life, and social competence (Hutzler, Chacham-Guber, & Reiter, 2013). In the UK, RI within sports is demonstrating impact; 'it has given me social skills, self-confidence, self-esteem, opportunities for travel and the vehicle to show my ability rather than my disability' (Vickerman, Hayes, & Whetherly, 2003, p. 49). Service learning (SL) is a particular form of volunteering seen by McKnight-Casey et al., (2006) as a means of empowering students and institutions to become aware of the needs of their communities and become civically active with them.

What marks the education and enterprise village as unique at St. Vincent's is how the engagement with social capital has strengthened outcomes. This was noted in St. Vincent's Ofsted Inspection of November 2016:

> Pupils' learning is enriched with a wide range of opportunities for them to engage with the local community, including with business and enterprise. This helps to deliver your aim for pupils to achieve success in adulthood once their journey at St Vincent's comes to an end. There are many examples of past pupils following their chosen careers as a result of your work in this area.

> The curriculum at St Vincent's is a key strength. Pupils learn a wide variety of subjects but their learning is developed exceptionally well through enrichment activities. Such activities provide pupils with opportunities to make new friendships, to follow their dreams and to be confident of a successful future.

What defines SL at St. Vincent's as unique and detailed further within the context of community partnerships, 'values' and ICT and curriculum generation, is the engagement of pre-service teachers and student design engineers in reciprocal value learning experiences focussed through the seeking of routes to employment and friendship groups

for the VI. As an established and ongoing process, St. Vincent's enlists student (SL) volunteers from their subject specialisms and interests (as a social cause Torney-Purta et al., 2001) matching those strengths and interests to VI pupils' strengths and interests, and RI pupils' interests, within project-based learning activities. The ultimate, longitudinal outcome has seen pupils generate their own 'flight-paths' or direction linked to their employment aspirations. The reciprocal value outcomes have been evidenced against volunteers' acquisition of the teaching 'Standards' required to qualify as a teacher and in outcomes for St. Vincent pupils.

## PROJECT-BASED CASE STUDIES IN THE VILLAGE

In this section we report on three projects which have brought together RI, SL and wider 'soft' to 'hard' value added outcomes for pupils in the village; the Million I 'Sight box' project and the school 'Fab 4000' comic. Over the last three years, pupils at St. Vincent's have been encouraged to think of entrepreneurial ideas attached to how they would design support for their own disabilities. Although cross curricular in its approach, Physical Education lessons (including friendship group generation, health and participation reasons) have served as the starting point to delivering a deeper engagement in teaching and learning for the pupils. Two specific ideas have been researched and generated with the children 1. A running line enabling VI pupils to run without need for a sighted guide and 2. A 'Boccia Grid' enabling pupils to enhance their spacial awareness in playing what is in essence, bowls. Working with Rotary International District 1180 (where St. Vincent's has its own Rotary Club of Liverpool St. Vincent's) funds were raised to generate a physical 'sight box' containing these two sports access ideas and also including a range of other existing resources available for VI sports access. To date, one box has been gifted to the Pakistan Multicultural Centre in Toxteth, Liverpool to be sent to a VI school in Pakistan, one will be taken to a VI school in Nepal in collaboration with the Pahar Trust (www.pahar-trust.org) in February 2017 and a further one to Sierra Leone also in February 2017 with boxes at the time of writing ready for Rwanda, Gambia, India and Indonesia. The aim is to provide a means whereby VI pupils in the UK can design ideas for inclusion in the sight box enhancing employability, whilst recipients of the equipment overseas in developing countries can use the equipment to become trainers and secure work. There is a synergy here with the 'bigger picture' of the PREVENT aims in connecting VI communities with positive outcomes celebrating supportive settings for all individuals as opposed to focusing on differences (e.g. cultural or religious). To fund the research and development needed for the sight box as pupils come forward with new ideas St. Vincent's generated the 'Million I' project calling for one million people to say 'I will support this innovation with £1'. A secondary outcome has been the support of a startup SME from a design engineering (SL) student who volunteered into St. Vincent's from Liverpool John Moores University. This student is now developing a VI Rugby ball with the school connecting cross curricula STEM teaching and learning (www.sightbox.org.uk ) The Million I, U – tube link and its connection with the school being awarded 'Freedom of the City' can be viewed at: https://www.youtube.com/watch?v=Q_nBdwCTwHU

For example, studying game making within his ICT curricula one past pupil (Ben) was given the opportunity to spend a week at the Sony gaming Test bed in Liverpool, followed by a submersion in gaming innovation at the well acclaimed G2G3 centre in Edinburgh. Although visually impaired, this is not his defining characteristic; it is his creative imagination. Supportive ICT specialists were able to translate Ben's ideas very rapidly to 'on screen' demonstrations highlighting his creative abilities. Returning to the village, Ben

shared ideas with a number of Service-Learning focussed students from Liverpool Hope University who had high ICT literacy skills. Sharing of ideas and 'having a go' at those ideas, subsequently led to this pupil securing financial Small Medium Sized Enterprise (SME) support and setting up his own business now employing two people in taking gaming technology to a schools market across the North West of England. Furthermore, the creative impact coupled with careful, focussed and cross curricular classroom support by teachers, learning assistants and Service-Learning volunteers assisted him in securing a DISTINCTION * in his Pearson BTEC Level 3 Certificate in Information Technology examination. His overall success boils down to this pupil valuing and being supported to value his own creativity, an extension of current definitions of RI, SL and engagement in social capital.

Reflecting on the sight box and its international links, the school decided to develop a comic strip to connect literacy and numeracy lessons with the wider vision of the school. In September 2016, St. Vincent's brought together an event specifically to provide the individual (ICT and literacy) strength engagement of pupils within curricular workshops linked by innovation, creativity, the generation of a comic and service to visually impaired (VI) communities across the world.

The global 'coding dojo' movement with Salesforce visited St. Vincent's introducing VI children to computer coding workshops and gaming technologies: https://vimeo.com/186291220/7664f0f8f5

The coding dojo was all linked to a raft of exciting ideas designed to fire the imagination and showcase opportunities for VI pupils within the world of work (see Twitter @stvincentsL12). Furthermore, the project engaged the school Scout troop and Duke of Edinburgh students in developing alternative 'outcomes' attached to Scouting and DofE awards. As part of the workshops, coding programmes were used to introduce a 'drone'. Ideas were sought from the children as to how a drone could, for instance, fly medical supplies into remote areas. At the end of the day, colleagues from Liverpool John Moores University flew a real drone across the school, reinforcing a message that imagination and creative ideas can lead to real actions. The 'coding' workshops worked in synergy with the writing of a comic alongside former Marvel comic writer Tim Quinn. The comic itself has St. Vincent pupils as the 'Fab 4000' superheroes using their coding skills to operate a drone as a means to eradicate the 'blackfly'; a major cause of sight loss across the developing world. Our past pupil Ben noted at the start of the paper and his (quite real) ''ZAPZ' bus is included within the story. The comic can be viewed at http://www.stvin.com/archives/11109

The third project upon which we report is 'Shenanigans', the 'home of storytelling' for the visually impaired. Devised by staff member and author (pseudonym) Harrison F Carter, Shenanigans is an enrichment project (a school club) to guide keen writers through the creative stages of story development through to publication. (Follow on Twitter and website @stVinCreative and www.shenanigans-creative.com) It is by nature highly collaborative, and seeks to make use of the potential of St Vincent's as the *'enterprise village'*, utilising facilities such as the radio station, the recording studio and reprographics. Shenanigans provide a forum for socialising and community engagement, cumulatively contributing to our social, moral, spiritual and cultural objectives. The scope of the Shenanigans club was extended to encompass a link with the Duke of Edinburgh's Award. Through the *'Skills'* element of the D of E programme (designed to develop practical and social skills that

nurture personal interests and talents), it was realised that the members of Shenanigans can fulfil this criteria through their participation in the club. The outcomes, i.e. their stories and positive contributions serve as evidence of their confidence and self-esteem being raised. As a relatively new project, we look forwards to seeing how VI young people reflect and make-sense of the United Nations 'Sustainable Development Goals' moving forwards within their writing.

## CONCLUSION

How we educate *our* children on a global scale, and the values we share with them holds a key to unlocking potential, and in terms of the economy, more equal and inclusive ways for disability groups. The full engagement of disability groups and their creativity within future thinking and ICT development, offers scope to nurture life changing ideas and initiatives for individuals and their peers on a more level footing. Advances in ICT and access technologies for disability groups, coupled with the increasing power of ICT to connect humankind, would appear to present a myriad of opportunities to generate SDG 17 'partnerships for the goals,' partnerships that could then seek to impact on the other sixteen SDGs.

We would encourage Governments to rethink how special school settings can offer innovative ideas and share best practice with mainstream partners. Specifically, we feel it well advised to place an immediate focus on SDG 17 *'partnerships for the goals'* within the context of sharing best practices from project-based learning. There are a number of community partners such as Rotary and Scouting where added value can be nationally connected. Furthermore, we suggest student teachers, student engineers and student doctors and nurses would be well placed in collaborative SL projects alongside their teaching peers. We encourage Governments to look at (local) SL models embracing RI and social capital as a means to link Higher Education and school learning communities with special educational needs best practice. We encourage Governments to invest in research and development across ICT and STEM for and with disability groups as part of local SL models. Where teacher training is undertaken, we encourage Universities to engage acquisition of the 'Standards' required to qualify so as to embrace SL and other qualifications such as the Duke of Edinburgh award as a space to learn and appreciate difference and ability. Furthermore, we encourage Ofsted to consider more deeply the acquisition of such non-academic qualifications alongside their wider 'soft to hard' outcomes potential. Furthermore, we encourage the research community to investigate the links between Social Capital, Reverse Inclusion, Service-Learning and creative curricula in providing better outcomes in terms of employability and friendship groups for VI communities of learning within a 'common good' framework.

*Our* challenge is to ensure that teaching reflects the evolving knowledge and ideas of contemporary practice, and the ever-changing expectations of society, while standing firm and resisting change to the core values of professional practice. The United Nations 'Sustainable Development Goals' provide that reflective platform upon which we may stand together, and act into.

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