Developing inclusive education through a collaborative transatlantic approach

Jean Johnson, Jonny Dyer, Ben Lockyer
jean@inclusiontrust.org, jonny@inclusiontrust.org, ben.lockyer@notschool.net
The Inclusion Trust

Abstract

Growing numbers of young people are dropping out of formal education although there is little research available about disaffection from learning by teenagers. What is available focuses on those in schools rather than those who rarely if ever attend. Using an inductive paradigm and participatory action research, this paper looks at a successful ICT based online community of practice for teenagers excluded from formal education and asks whether this model can be adapted in a transatlantic context. It asks whether two distinct groups can form a collaborative learning community by creating an opportunity for them to learn as separate cultural groups as well as collaborating in distinct curriculum areas. Preliminary findings suggest that where online learning for this disadvantaged group of young people is built around the concept of social networking and a constructivist approach to curriculum is used, engagement in learning occurs.

Keywords: disaffection, social networking, online community, education

Introduction

It is a well documented fact that not every young person is well motivated by the traditional compulsory education system with increasing numbers of young people absenting themselves from school and disengaged from learning in an institutionalised context. In educational settings, the inclusion agenda has been seen to encompass a broad spectrum of children and young people, ranging from those with special needs to those from the lower socio-economic backgrounds although they are not synonymous. Those who are excluded from traditional education are often cultural or other specific groups targeted by policy makers as part of the inclusion agenda for a range of reasons, e.g. educational, economic, social or geographical. The targeting is not usually holistic, so that year on year it might focus on different specific groups whilst others potentially become more marginalised.

Rejection of traditional education systems is not viewed as unique to any one country or culture and whilst there is evidence linking disadvantage with underachievement in school (DfES, 2005), there is no substantial body of research to support the idea that disaffection from school might be due in whole or part to the use of particular pedagogical approaches or curriculum content. Indeed, educational reformer (Holt, 1970), when asked what subject matter he saw as essential to be taught in schools, replied "None".

Although Greenberg (2002) suggested that schools are often regarded as institutions in which learning is synonymous with "being taught", Vygotsky said "If we are to build a theory of teaching, evidence must come from elsewhere than schools. The most effective teaching occurs in other settings of socialisation" (Moll, 1990). Evidence suggests that pedagogical approaches which involve the use of computers can engage young people in both formal and informal learning (Bull et al., 2008), but research by Hollingworth et al.

A. Jimoyiannis (ed.), Proceedings of the 7th Pan-Hellenic Conference with International Participation «ICT in Education», vol.I, pp. 189-196
University of Peloponnese, Korinthos, Greece, 23-26 September 2010

(2008) goes further suggesting that the use of ICT improves soft skills, such as self esteem, contributing to the reduction of disaffection. Parallels can be drawn between social networks and online communities of practice, challenging our thinking about learning and pedagogical approaches that use the Internet as a tool (Johnson & Dyer, 2008).

The development of Web 2.0 tools and Internet based social networking has offered opportunities to develop innovative pedagogical approaches with the aim of re-engaging disaffected teenagers back into learning. Research by Johnson & Dyer (2008) suggests that although the Internet has changed little in a technological sense, online social networks indicate a "fundamental shift in the way we use those technologies allowing significant learning to take place". Where disaffected and marginalised teenagers are concerned the development of strong social networks provide the bindings which draw them in to the online community of practice, but these environments need to be flexible, allowing learners to influence and define the structure themselves. An online community of practice means that all participants can communicate with other participants asynchronously and online (Johnson et al., 2009a). It is inclusive because participants set their own rules of discussion and conduct, hence participation.

Attendance at school does not necessarily mean learning is taking place. Like school, participation in an online community of practice can mean engagement in learning to a greater or lesser degree, but qualitative judgments need to be made as to whether that learning is meaningful, since choice of curriculum and the use of a range of ICT tools is learner driven. The UK based alternative provision Notschool.net is a well-researched online community based education system for the "hard to reach" which uses Web 2.0 tools and social networking in its online community of practice for marginalised teenagers. Established in 2000, it has worked with over 6,000 young people in the 14-16 age range. This provision uses a constructivist pedagogical approach.

Constructivism is a term used to describe a process where the learner takes control, building a mental construct of their learning, which is subject to continuous modification and change. This could be called a personalised or bespoke approach to learning. Constructivism is based on the founding principle that learners are active and construct new ideas from their existing knowledge (Bruner, 1966). Bruner (1997) later developed his thinking to link education with culture, viewing schools as one small part of the general process of education. Moll (1990) cited Vigotsky as pioneering constructivist ideas at the turn of the last century with his emphasis on internalising thinking, reflection and iteration rather than the concept of the taught lesson. Vigotsky's perspective was that children learn when they are in charge of their own learning and know that they are in charge. Through constructivism, learning is embedded in activity which in turn is contextualised so that "concepts are both situated and progressively developed throughout activity" (Brown et al 1989). They summarised this as the difference between knowing what and knowing how.

The opportunities for constructivist learning could be seen to be amplified by the use of ICT. Strommen and Lincoln (1992) saw the future of education in an increasingly technological world as founded in constructivist methodology. They argued that children have become used to controlling information flow and access to data whilst the education system has remained largely unchanged resulting in "an estrangement of the schools from society, and from the children who live in it". Flow of information is controlled by millions of young people who use blogs and social networking sites and communicate in a range of ways online (Buckingham 2005). They are thus able to work on their own at a computer station, but collaboratively with others in an online environment. A "complementary relationship" is suggested between technology and constructivism by Nanjappa and Grant

(2003), "the implementation of one benefiting the other". They suggest that "constructivism offers flexibility to teachers to individualise learning for each student while using technology tools to augment cognitive and meta-cognitive processes", hence ICT can readily lend itself to constructivist approaches to learning.

Each young person taking part in Notschool.net is given a computer system and broadband access in the home so that they can access the online environment for both formal and informal learning at any time. Unlike traditional school systems, young people learn at times to suit them. The provision is available and supported by qualified adults 24 hours a day for the full calendar year (Johnson & Dyer, 2005a; 2005b).

The Notschool.net model is viewed by some as representing a radical departure from existing education systems, but its success rate when measured in terms of quantitative data and examination results (Duckworth, 2005) suggests a successful formula when applied in the UK context to this particular group of young people. This raises the question of transferability and whether such a model can be successfully applied in an international context as a stand-alone or can it be taken further with the potential for an international collaboration between both young people and adult educators.

The State of Michigan has one of the highest drop out and unemployment rates in the US (US Labour Bureau of Statistics, 2010), exacerbated by deep recession and the decline of the car industry. It recognised the need to rethink some of their existing education policies in order to address this education and economic crisis and to prepare their learners for future success, as society, economies and technology continue to change. In looking for a solution, educators saw the Notschool.net model as a potential solution that was well researched and externally evaluated. A special permit was obtained from the Michigan Department of Education to allow the Westwood Cyber School to research whether such a model could work in their context. It was noted that Michigan had used a content delivery model of online learning previously using their seat waiver scheme, but this was not designed specifically for their hard to reach students (Michigan Department of Education, 2009a; 2009b). According to Johnson & Dyer (2005c), whilst a content push model is often the norm, opportunities for the learner are limited and do not to support the notions of community and participation, “failing to recognize the changing and challenging culture of learning in the twenty-first century”.

Preliminary research into the potential of applying the Notschool.net model to the Michigan context took place during 2007-8. Educators from the UK visited Michigan to familiarise themselves with the US context both in a physical and legal sense. Educators from Michigan then visited the UK to immerse themselves in the programme for a period of one week. The group was divided so that they could spend time in four very different regions of the UK and involve themselves fully in the provision and the local cultural context. Families and young people were visited at home. In all cases, families lived in socially deprived areas. Time was also spent with teachers, support workers and a curriculum development team. This preliminary work helped to inform the research design.

Methodology

The decision was made to adopt an inductive paradigm and a qualitative approach was used with a branch of ethnography being selected. Ethnography is a method of social research that has a characteristic set of strengths and weaknesses and its limitations are recognised**.** Ball (1993) stated that "Ethnography [...] implies a commitment to a search for meaning, a suspension of preconceptions and an orientation to discovery". This could present challenges to the ethnographic action researcher working within organisations in a

role where they are in a position demanding that they drive organisational and cultural change. There is a recognised risk that whilst the participants give their views and opinions, ethnographers could potentially evidence bias in their interpretation as they write field notes. This is to some extent eliminated by collecting data from a very broad range of participants; both adults and young people.

Ethnographic Action Research (Slater et al., 2003) is a relatively recent development that draws together ethnography and action research. This theory was developed in research that studied the impact of ICT and multimedia centres on poorer communities and marginalised groups, thus there are similarities between the target groups and the context of this research. In this methodology, research is an open-ended and ongoing process. This reflects the status of the Michigan model as a live and ongoing piece of research that developed more rapidly than originally anticipated. Subsequently, ethnographic action research was used to examine the development of the new Michigan Cyber School model, its relationship to Notschool.net and the concept of a collaborative transatlantic educational approach. Ethnography demands that the researcher becomes immersed in the culture they are studying, often for a lengthy period of time. "It relies heavily on up-close, personal experience and possible participation, not just observation." (Genzuk, 2003). Data was collected using a range of tools including visits, informal interviews, participant observation, diaries, field notes and email. It should be recognised that it was not possible to finalise a concrete structure of the research design in advance of data collection. The very essence of this kind of research method is its flexibility and adaptability and thus the parameters of any design must reflect this. Collecting from within the context of an online environment is particularly challenging because of the extent of the data and the ability of the participants to constantly edit, change and delete.

All participants had the opportunity to contribute to the research through feeding back their work from within the online community. Qualitative judgements were made based on feedback, writing, email and other forms of communication such as the use of community and Web 2.0 tools by participants. Some quantitative data was also collected and analysed to contextualise this study.

Research Design

An online community was created in the US, which mirrored as far as possible Notschool.net in the UK. This was achieved by taking digital pictures of the web pages of the UK server and by input from the UK research team. The same generic software and hardware were used.

Adult staff in the US were recruited collaboratively and involved members of the UK team and UK young people in the interview and selection process. The UK team then trained the newly appointed USA personnel in Michigan in their local context. Training followed the same format used in the UK. A small number of adult and young people from the UK remained in the US online community to support them and to provide guidance. Learning in the online community was project based and used a constructivist approach (Brown, 1989).

The first young people were inducted into the project in January 2009, rising to 500 by July 2009 with a waiting list. Numbers were resource constrained. All the young people had dropped out of college, had failed to achieve the grades expected from their age and peer group and were not taking part in education for a range of reasons.

Results

Building a sense of community

In the first instance the US team focussed on building a sense of community online on their own dedicated US host server located in Michigan. Young people and staff from the UK helped to build and scaffold the online learning environment as "a place where children's constructive characteristics are recognised and respected" (Sarason & Lorenz, 1998). The presence of a small number of UK participants provided a mentoring system and enabled the developing US online community to follow the UK model as closely as possible whilst numbers enrolling in the USA increased steadily.

Whilst the community grew, learning experiences for pupils in the US were individualised to meet specific student needs offering a year round educational programme based upon a constructivist project-based online learning experience. Students collaborated with staff to develop standard focussed learning plans and projects. Projects included use of multimedia and video about current affairs topics. Experts then used rubrics to evaluate student progress and work on a weekly basis. These rubrics were subsequently used to measure attainment against the Michigan Merit Framework. This is similar to the way that learning within Notschool.net is tracked and monitored on a weekly basis and measured against the National Qualifications Framework. Initial analysis of results from the Michigan project were significant, indicating that the US cohort overall had gained on average 40% additional credits against the Michigan framework during their time on the project. At the time of measuring, participation was between 3 and 12 months.

Once the community was viewed as functioning successfully, a collaborative online area between the USA and the UK communities was built. This was later divided into several sub sets which were phased in over time. This meant that the two communities remained separate and secure, but several co-joined areas were also accessible to both communities. Initially a social area was developed to enable young people to break down cultural and social barriers and to develop informal learning. A separate area was developed for adults to enable them to have professional discussions about teaching and learning. It was noted that adults used the area for social interactions in the first instance rather than for the development or professional discussions. As trust and understanding developed (Johnson et al. 2009b), adults discussed pedagogy, engagement and accreditation. Evidence indicates that they began to develop a shared understanding through professional collaboration. The collaborative areas promoted social and digital inclusion. Once the social areas developed the notion of shared community was extended to curriculum so that young people could collaborate on project work and ultimately achieve dual accreditation under the Michigan Merit Framework and the UK National Qualifications Framework. Digital Photography was highlighted as the area of content which most readily engaged young people on both sides of the Atlantic and which appeared to map most easily onto both qualification frameworks. Although research into this area is still ongoing, preliminary findings indicate that such a collaboration with dual accreditation is readily achievable and is viewed as an important success indicator by all participants and by external stakeholders.

It should be noted that despite all efforts to ensure that the US and UK models were as similar as possible, there were some differences between the two.

Geographical and Cultural context

The UK model continues to be distributed geographically across the UK incorporating inner city and rural contexts although the characteristics of the UK participants remained similar (Johnson & Dyer 2005a; 2005b). Most were from the bottom two socio-economic groups. Access by young people to local offices was easily possible in some areas in the UK. Here, some regular face-to-face sessions operated on an ad hoc basis for specific reasons. In the US, young people were concentrated in Detroit area and lived in regions noted for particular sub cultures, e.g. the Inkster area is predominately black Afro American whilst other areas are predominately Hispanic or White American. There is no welfare benefit system in the US and during research visits, extreme poverty was noted.

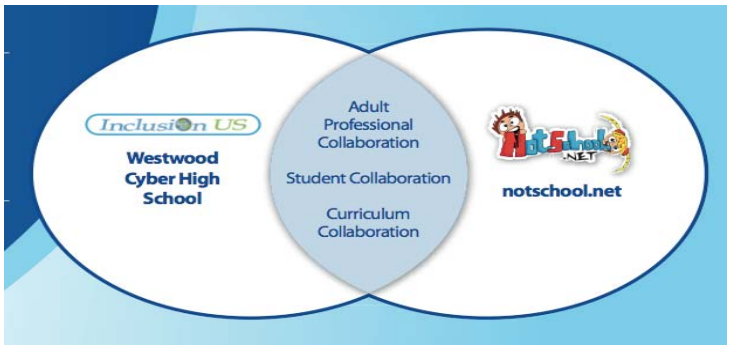

Figure 1. Collaborative Model of online learning

Two USA models

The young people from the US were broadly split into two overlapping projects. Although they were all members of the same homogeneous online community, they were designated to "Notschool.net" or "Myschool". In the former, all learning took place online. In the latter, young people were expected to attend a refurbished educational establishment twice a week by appointment for a face-to-face session with a teacher. This was possible because all young people lived in very close proximity to the institution, so that visiting for these sessions was easily achieved. The young person chose the subject, the teacher and the day and time slot of the visit. Contact with the teacher was informal and on a one-to-one basis. There were no school classes or curriculum groups. The teaching room was effectively owned by the young people who decorated the walls to their taste and posted their materials. In no sense could it be considered a traditional classroom.

Age range

In the US, young people were aged around 17 years, whereas in the UK, the project was designed for those aged 14-16. The US participants were therefore older. In the UK, young people of this age would be in work or a college of Further Education. This raises the question as to whether the age of this group of young people makes them more able to exercise choice and make independent decisions.

Learning materials

Although both the US and the UK used a constructivist approach, materials were developed in the USA context to match a US accreditation model, in this case the Michigan Merit Framework, so that young people could achieve accreditation. In the UK, materials were developed against the National Qualifications Framework. Detailed analysis indicated a very good match between the two frameworks, but nevertheless there were differences that reflect the local cultural context.

Eligibility

In the UK, Notschool.net applies strict eligibility criteria and young people are placed on the provision by referring agencies or panels although both they and their parent or carer have to agree to accept the provision once the placement is made. In the US context, although the same eligibility criteria broadly applied, young people were able to choose to select the provision without any referral by another agency, thus they were able to exercise a powerful choice in their learning. This ability to choose the provision over traditional alternatives goes some way towards explaining the waiting list for participation in the US.

Conclusions

This research suggests that it is possible to adapt an educational model of online learning for the hard to reach to a transatlantic context, but that adaptation is likely to include cultural and contextual differences. Changes to the legal framework might also need to be made to enable such new educational models to take place. Furthermore, success indices such as achievement at accreditation are likely to be a factor in these cultural and contextual differences dependant on the demands of local and national policy and practice.

Early indications suggest that it is possible for two distinct groups from different cultures and contexts to develop learning together in a collaborative online community. This is achieved by creating an opportunity for them not only for them to learn as separate cultural groups but also to develop shared collaborative projects in distinct curriculum areas leading to shared and dual accreditation. Collaboration by the adult educators involved in their learning is also necessary as is a commitment to the same pedagogical principles.

Engagement in learning is not simply a matter of participation in an online community of practice. This group of marginalised young people needed to feel a sense of ownership of and belonging to the community. This sense of ownership is developed in many ways and is dependant on human intervention which is not always overt. Highly skilled facilitators are needed who have a good understanding of learning and know how to adapt their pedagogical approaches to best serve the needs of severely marginalised and disaffected young people, understanding when to intervene, encourage and support individuals in an online community of practice. Otherwise, the opportunity for a second chance in education and learning is potentially replaced by a second rate option.

Although this research focuses on marginalised and hard to reach youth who have failed in traditional educational contexts, an online transatlantic educational model re-imagines education through the adaptation of pedagogical approaches in online contexts and through the use of technological innovation. It also provides a better understanding of cost effective innovative solutions to re-engage at risk youth in the learning process.

Several other states in the US have now expressed interest in replicating the model and a pilot of Native American teenagers will commence shortly. This is likely to develop its own

uniqueness to reflect the needs of the youth it serves and is likely to provide new insights as participants contribute to the international shared collaborative online community areas. From the political perspective, new laws are currently being developed in Michigan to allow for more flexible learning environments such as cyber schools.

References

Ball, S. (1993). Self-doubt and soft data: social and technical trajectories in ethnographic fieldwork. In M. Hammersley (ed.), *Educational Research Current Issues*. London: Chapman Publications.

Bull, G., Thompson, A., Searson, M., Garofalo, J., Park, J., Young, C., & Lee, J. (2008). Connecting informal and formal learning: Experiences in the age of participatory media. *Contemporary Issues in Technology and Teacher Education*, 8(2), 100-107.

Brown, J. et al. (1989). *Situated cognition and the culture of learning*. Educational Researcher; 18(1), 32-42.

Bruner, J. (1966). *Towards a theory of instruction*. Cambridge, MA. Harvard University Press.

Bruner, J. (1997). *The culture of education*. Cambridge, MA. Harvard University Press.

Buckingham, D. (2005). *Schooling the digital generation*. London, Institute of Education.

DFES, (2002:5). *Education and skills, delivering results, a strategy to 2006*. Retrieved July 2005 from http://www.dfes.gov.uk/delivering-results

Duckworth, J. (2005). *Notschool.net external evaluation 2005*. Retrieved March 2010 from www.notschool.net/docs. Exmouth, Cutters Wharf Consultants.

Genzuk, M. (2003). *A synthesis of ethnographic research*. Retrieved 26 March 2010 from http://www-rcf.usc.edu/~genzuk/Ethnographic_Research.html

Greenberg, D. (2002). *Back to Basics*. Retrieved March 2010 from http://www.geocities.com/CapitolHill/Senate/3671/school-basics.htm

Hollingworth, S. et al (2008:7). *Technology and school improvement: reducing social inequity with technology?* London Institute for Policy Studies in Education (IPSE). London Metropolitan University.

Holt, J. (1970). *The Underachieving School*. London: Pitman Publishing Company.

Johnson, J., & Dyer, J. (2005a). *Notschool.net progress report*. Chelmsford: Ultralab.

Johnson, J., & Dyer, J. (2005b). *Notschool.net, Research phase, Final Report*. Chelmsford: Ultralab.

Johnson, J., & Dyer, J. (2005c). User-defined content in a constructivist learning environment. Recent Research Developments in Learning Technologies. *Proceedings of the 11th International Conference on Multimedia and ICT's in Education*. Caceres, Spain.

Johnson, J., & Dyer, J. (2008). The development of formal and informal learning online through online communities of practice and social networking. *Proceedings of the 7th European Conference on E-Learning*. Agia Napa, Cyprus.

Johnson, J., Dyer, J., Chapman, C., Hebenton, R., Lockyer, B., & Luck, K. (2009a). *Literature Review on Online Communities*, ComeIn Project, FP7.

Johnson, J., Dyer, J., Chapman, C., & Lockyer, B. (2009b). *Specification for the development of Enterprise content drawing on employers requirements and the needs of MYP*, ComeIn Project, FP7.

Labour bureau of statistics (2010). *Regional and State Employment and Unemployment Summary*. Retrieved March 2010 from: http://www.bls.gov/news.release/laus.nr0.htm

Michigan Department of Education (2009a). *Pupil Accounting Manual – 5A Alternative Education Program*. Retrieved from: http://www.michigan.gov/documents/mde/5A-AltEdProg_250849_7.pdf

Michigan Department of Education (2009b). *Summary of Seat Time Waivers*. Retrieved March 2010 from www.michigan.gov/documents/mde/Item_VI_278814_7.doc

Moll, L. (ed.) (1990). *Vygotsky and Education Instructional Implications and Applications of Socio-historical Psychology*. Cambridge: Cambridge University Press.

Nanjappa, A., & Grant, M. (2003). *Constructing on constructivism: The role of technology*. Electronic Journal for the Integration of Technology in Education. Retrieved from http://ejite.isu.edu/Volume2No1/nanjappa.htm

Sarason, S., & Lorenz, E. (1998). Crossing Boundaries. *Data Collection and Analysis*. Sapsford & Jupp.

Slater, D., Tacchi, J., & Hearn, G. (2003) *Ethnographic Action Research Handbook: A user's handbook developed to innovate and research ICT applications for poverty eradication*. New Delhi, Unesco.

Strommen, E. & Lincoln, B. (1992). *Constructivism, technology, and the future of classroom learning*. *Education and Urban Society*, 24, 466-476.