DISRUPTION AND THE AGENCY OF LOW-ENGAGEMENT STUDENTS – ADOPTING MOBILITY FOR RESOURCE OWNERSHIP TOWARDS A CULTURE OF DIGITAL LITERACY LEARNING

«A society which is mobile, which is full of channels for the distribution of a change occurring anywhere, must see to it that its members are educated to personal initiative and adaptability. Otherwise they will be overwhelmed by the changes in which they are caught and whose significance or connections they do not perceive» (Dewey, 1916, p.84)

Howard Scott, University of Hull, UK, howardscott75@hotmail.com

English Abstract

This essay considers how opportunities for communication and activity borne out of disruptive mobile social media enable an alignment of 'knowing as process of discovery' with 'knowledge as a goal-orientated product'. The adjective ‘disruptive’ is used to pay recognition to the transformation to socio-cultural structures of time, communication, movement, inter-personal and local contexts represented by technologies. To appropriate mobile tools for pedagogical purpose means an empowerment and liberation of personal agency and community from standard forms of classrooms, teacher-directed knowledge and institutions. A case study provides an outline of how, with supportive pedagogical

ISSN 2038-3002 - Vol. 6, n. 2, 2015, pp. 383-401

guidance, artefacts and user-generated content reflective of recreational social media practices can be situated as meaningful praxis for mobile learning that allows for self-expression and creativity. It proposes that disruptive technologies, supported by pedagogical strategy, may result in meaningful engagement with students.

Keywords

Mobile learning, heutagogy, blended learning, mobile social media

ISSN 2038-3002 - Vol. 6, n. 2, 2015, pp. 383-401

1. Disruption to convention: mobiles tools facilitating cultures of blended learning

Disruption in this article is referred to specifically as the use of mobile tools to undermine conventional relationships of learner to teacher, to institution and to learning resources. This is reflective of a heightened sense of ownership of learning by students, which is emerging as a future direction of travel as mobility becomes increasingly encultured in education. In the past, ideas and information were copy-written and belonged to the agency of authors and institutions; these were transferred to students by knowledgeable teachers as strategic communication in the shape of encyclopaedia knowledge or textbooks. The affordances of Web 2.0 tools disrupt this top-down view of knowledge passed on between agents. Culturally, notions of ownership are vulnerable to disruption where information and content is shared via digital technologies. The appropriation of mobile devices employed here to learning strategies allows for discovery and the open sharing of ideas. This is not without tensions to formal education. Yet where it is supported by pedagogical design, information is used to scale strategies from content ownership (and institutional concerns of plagiarism) towards more shared, contextualised, meaningful and personalised learning. Students and instructors do not innately take to the principles afforded by mobility; hence enculturation is a key term of this article, since it reflects the need for institutions to appropriate personalisation and mobile tools to make them de rigeur in practice.

It seems that within the debates surrounding digital technology, for every potential affordance made possible by mobile technologies, there is a tension framed as caution against their implementation. To this, it is worthwhile to reflect on Dewey's remark above. The holistic opportunity is one of adapting tools that define the zeitgeist and our objectives of which, in wider turns, define what we do with the tools of the culture since, as Verbeek (2005) argues, people and the material things they use are inextricably bound together. Buckingham (2008) remarks that technology cannot be separated as if it acts in autonomy, independent of human society and actions and cites Robins and Webster (1999), who argue that such technological determinism lead to perspectives where technology is seen as «influencing society yet beyond the influence of society» (ibid., p. 74). To these ends, it is vital to consider human agency as a centrifugal force and the harnessing of learning technologies with theoretically supportive learning frameworks as necessary. Identifying and interrogating how these are operationalised in situ alongside digital technologies is implicit to research to inform emergent practice.

ISSN 2038-3002 - Vol. 6, n. 2, 2015, pp. 383-401

Thus, the case study in this essay aims at a critically realistic account of the conscious underpinning of deliberately complex theoretical pedagogical principles to support praxis involving mobile strategies for a group of low-ability students in a post-16 Further Education College in the UK. Students were given a central question to research, a range of resources and options for mobile inquiry. Strategies were used based around Web 2.0 digital literacy tools for content creation, publication and inquiry to promote self-determination, collaboration, content creation (realised by poster production), and knowledge-sharing (by publication in a social network) over a 4-week period.

2. Heutagogy, disruption and the Liquid Society

Bauman (2000) talked of the present era as 'liquid modernity', where conventional social structures and institutions no longer support and shape the way life is lived. There is a sense within his account of insecurity and instability, of humans needing to be flexible and adaptive to change. Simultaneously, modern technologies are active and collaborative, highly personalised but social, and allow individuality to express and affirm itself in multiple creative ways. Also reflective of these tools are learning theories, which can help to inform their use in educational contexts. Heutagogy (Hase and Kenyon, 2000) is characteristic of learners who are autonomous and capable and traditionally informed distance learning, but in this case study it is perceived as a collective means of empowering low-engagement students agency with the use of disruptive tools to become more responsible for their own learning objectives.

The development of 'capability' and 'self-determination' in students has been defined by Hase and Kenyon (2000) as heutagogical approaches to learning, which are highly autonomous and creative. Heutagogy is perceived as moving beyond self-regulated learning (learning to learn) or student-centred learning and more aligned to full proactive agency by the learner, who may introduce elements of their own life experiences to personalise and complement practice. A fuller explanation of the pedagogical methods designed to meet these objects is explained in the later section.

Tensions regarding the mobile nature of learning technologies are often attributed to their disruptive capacity. Disruption is an immediately negative concept, which teachers and institutions will be apprehensive of due to its connotations with anything which may cause distraction in traditional contexts like classrooms. Yet disruption can be interpreted positively when attributed to archaic teaching practice, such as the 'chalk and talk' lecture approaches, which are fixated on content delivery and knowledge transmission over notions that knowledge is individually

ISSN 2038-3002 - Vol. 6, n. 2, 2015, pp. 383-401

created or a shared social product (Prawat and Floden, 1994; Cunningham and Duffy, 1996). The question is how to appropriate (Pachler, Cook and Bachmair, 2009) disruptive technologies and practices to operationalise these in practise?

Mobile technologies disrupt contexts of learning because they present means to transcend spatial and temporal boundaries (Kearney, Shuck and Burden, 2010) such as classrooms, timetables and buildings (Traxler, 2009) to promote anytime, anywhere learning. Indeed, disruption goes further, causing some to question the continued relevance of formal institutions for learning (Pachler, Cook and Bachmair, 2009) or the continued significance of teachers (Nikolov, 2007), when the Internet provides access to knowledge on hand. Digital technology is also shown as disconnecting previously formidable structures (the home, the church, the school and community) from its influence on individuals (Ito et al., 2013) - institutions whose significance to formal learning may be threatened by transformations in how learning is organised in ways Siemens (2004) proposes as 'Connectivism', where learning resides between networked hubs, or affinity spaces (Gee, 2005). Mobile devices represent vehicles to traverse hubs, which may themselves be counterpoints to conventional learning contexts. Hubs may be individuals, organisations, or communities of practice where a locus of activity enriches learning and where fragmentation can become more anchored and resident by constructed activity. As an example, artistic students situate their interests in online communities such as deviantart.com that complement formal learning contexts. Yet Bauman (2000) characterises societal changes such as globalization, the decline of welfare, less lifetime employment and insecure personal relationships as contributing to greater social fragmentation. This is suggested as resulting in a lack of role models (Bellingreri, 2014) or guidance. Bauman labelled this the 'liquid society', reflective of a landscape which has seen disruption represented by digital technologies as reframing entire social orders – inter-personal hierarchies, ways time is lived, how people work, a lack of routine and infinitely negotiable processes. Many have take this to mean a disorientation from fixed points in an old world, and even a threat to young people's ontological security (Giddens, 1991), who were previously defined in part by such institutions and social structures (Buckingham, 2008; Livingstone, 1999). Online social networks reflect the state of continual social flux that Bauman identifies as undermining collective identifications at the expense of individualisation (Bauman, 2000). Hopkins (2002) reports on a culture obsessed with the omnipresence of identity, image and celebrity that comes from open and public visibility. This politics of the self informed by technology was foreseen in pejorative terms by Illich (1992, p. 47):

> «The machine-like behaviour of people chained to electronics constitutes a degradation of their well-being and of their dignity...Observations of the sickening effect of

ISSN 2038-3002 - Vol. 6, n. 2, 2015, pp. 383-401

programmed environments show that people become indolent, impotent, narcissistic and apolitical. The political process breaks down because people cease to be able to govern themselves; they demand to be managed».

To these moral panics, an opportunity emerges for a generation to exercise a sense of self in new domains via social media tools (Gee, 2014), a notion with resonance in a growing corpus of research surrounding identity and online communities. Stald (2008) accounts for the mobile phone's importance as providing a sense of constant presence, with continual updates, coordination, access, and documentation of activities for young people, while Vitak (2012) describes the 'context collapse' of communicating with multiple audiences in social networks.

Where a learning community of practice (Lave and Wenger, 1991) is formed within a network, as an affinity space (Gee, 2005), network sites are plausible as points of static orientation in a shifting world. Here, rather than 'mobility' being understood as disruptive and identity as fluid (Buckingham 2008), insecure and no longer fixed or defined by archaic institutions, mobility infers a type of nomadic (Semetsky, 2004; Meijas, 2005) existence in which horizon scanning (Jenkins et al., 2006) becomes key to flexibility and capability. In the grand tour that social networks present of a dynamic worldview, learners anchor their identities by authorship (Merchant, 2006) and an environment, as virtual and transient as it may be, is constructed where boyd proposes students may negotiate peer sociality and «write themselves into being» (boyd, 2008), via profile functions and opportunities to interact with the world. Pangrazio (2013) describes identity as a social construct and Mallan (2009), Stern, (2008) and McLoughlin and Lee (2007) cite social networks as domains where such constructs can be presented, and identity explored through self-expression and dialogue that is narrated publically with a sense of audience that inculcates sustained authorship (Alverman, Hutchins and McDevitt, 2012).

3. Authentic practice through mobility

These affordances of identity have great significance for language students – as the population in this study – used to attending learning in formal contexts; as Seely Brown, Collins and Duguid (1989) have described knowledge of new words can become abstract when contextualized through archaic forms, such as dictionaries. To understand language fully, students should use it in authenticated practice and situated in contexts. He posits that the classroom represents ersatz ('inauthentic') learning where knowledge becomes inert. The new domains and activities presented by Web 2.0 tools are disruptive to fixed classroom contexts, as well as teachers reliance on formal methods of learning and represent challenges and opportunities for what he presents as in situ practice. Social networks are

ISSN 2038-3002 - Vol. 6, n. 2, 2015, pp. 383-401

such an arena for critical and playful learning (Barden, 2014) that help to situate, contextualize and facilitate opportunities for the cognitive apprenticeship that Seely Brown and colleagues (1989) proposed. Identity, framed online with meaningful activity, allows performance (Goffman, 1990) of the self in a range of possibilities via mobile access. Potential for engagement, understood as «participation, affinity and identity» (Potter and Banaji, 2012, p. 84), and a sense of self-determination, characterised by Ryan and Deci (2000) as intrinsic motivation, are thematic to this process. Against this is the problem of disengagement, in particular the sense of 'lurking' in social networks, which Beaudoin (2002) has said is a prevalent feature of members of networks and as a sense of 'legitimate peripheral participation' (Lave and Wenger, 1991). However, in the context and with the demographics of Further Education, engagement is paramount and peripheral participation cannot be legitimised: the high visibility of activity and participation afforded by social network communities of learning allows for analysis and identification of non-engagement for teachers and institutions alike, where required.

4. Summary of the Theory and the forecast of the case study

Engagement may be perceived through activity; at its most meaningful it is both personal and social. According to Sugata Mitra's (2006) SOLE theory, students self-direct their own learning when provided with a central question and the resources to do so. In Mitra's hypothesis of SOLE procedures, students work independently with little direction from a teacher. In the course of this project, with accredited assessment the outcome, this was considered too much of a risk, so supported prompts interventions were planned by the researcher, which enabled practice with digital 'soft skill' sets (decision-making, collaboration, etc) deemed a necessity of the age and a vital part of a knowledge economy. This project represented a useful way to leverage these skills in situ allowing students the opportunity to engage with and to create content, for example by sampling/selecting available knowledge and by transferring its context to a poster.

The project proposes the support of personal capability in the students' ability to discover from mobile tasks, as well as to research and construct content from open sources. The social aspect is supported by the co-construction of user-generated content and the sharing of the resulting data with the community. Investigation was made by students using their mobile devices to record artefacts (videos, field notes, surveys) outside and around the college environment. These supported an acquired base of 'owned' information from which to extend into the user-generated social media

ISSN 2038-3002 - Vol. 6, n. 2, 2015, pp. 383-401

content in collaboration with others and in response to a central inquiry. The information was shared to a network to socially and visibly construct what had been discovered, before leading into further inquiry and the repository of further data. These methods revolved around the deployment of mobile devices and the archiving of material. The teacher was relatively free, then, to support the construction of knowledge from this base of information by challenging original assumptions regarding the topic.

5. Context and socio-cultural specifics of the research demographic

According to the 2012 UK Government Wolfe Review, all school-leavers who have failed the core National Curriculum subject of English must re-sit this GCSE qualification until the age of 19 if they wish to continue studying or training. This has inherent problems for engagement with the syllabus for most students. National re-sit achievement (regarded as a minimum grade C) is set at 41%. The study demographic is within a re-sit group on this course. It is based in an FE College in a highly deprived, industrial area of the northwest of the UK with high unemployment. Many of the college students do not have home computers or Smartphones, are low achievers with low attendance at college; they attend vocational courses such as construction courses or hairdressing. Unemployment may be domestically commonplace and they may not have aspirations to go to higher education.

The study comprises a group of n = 22 post-16 mixed gender students. Typically, in the problem of this demographic, boys are more prone to struggle with literacy. Low literacy levels and learning difficulties, such as dyslexia, are a common challenge, but equally so are fixed mindsets about ability, resulting in low confidence, intrinsic motivation, and inappropriate behaviour. Many students are routinely late to classroom lessons, arriving without pens or paper and leaving lesson notes on the floor or tables; they may refuse to participate, have poor attention for reading, are disillusioned, apathetic and vocally negative of learning outcomes and use profane language openly in the classroom; they may not focus on tasks or perform them to a low, perfunctory standard. Students wishing to achieve are often chided or unable to concentrate given this communal backdrop. Social problems, too, complicate their learning objectives are common, but it is clear that classrooms are difficult environments for students to perform formal learning in.

Combining these factors with a shorter time to pass the course (a two-year course is instead delivered in 33 weeks) and regular controlled assessments that make up part of the qualification means internal success rates are low, which can have negative consequences on students vicarious

ISSN 2038-3002 - Vol. 6, n. 2, 2015, pp. 383-401

college experiences, self-regard for capability and critically low levels of retention.

6. The study

One teacher (also the researcher/writer) was involved in the intervention, which was integrated into a 4-week once weekly, 2-hours lessons based around a language study, based upon the central question: *What are the differences in ways that men and women use spoken language?* – a syllabus unit that has summative assessment by essay.

The students used two social media platforms, supported by mobile learning activities. This involved 'horizon scanning' – gathering what information they found available online and using it to challenge or assert their assumptions made about the central question. As mobile intervention to this sourcing of information, students were given three choices of compiling live data, to further complement their online research. The platforms used were:

- Edmodo.com - a social network which each student is a member of throughout the course. There, they can post work they create personal profiles, start discussions, answer polls and surveys - all done openly and visibly on a communal wall, as on Facebook. This was used throughout the project.
- Glogster.com was used as a collaborative multimodal online poster design tool where research data was collated.

Under the direction of this researcher as classroom teacher, for four weeks in once weekly, 2-hour lessons, students were given prompts and choices for learning strategies based on learning theories outlined here.

6.1 Week One

The lessons were based in a computer suite in the college. In the first lesson, the topic of spoken language and gender was introduced, and the assessment criteria for the essay was outlined. A gauge of initial, or prior, knowledge was then taken on what was already known about spoken language. This was done with some small group discussions around a set of stereotypical assumptions made about language used by the genders e.g. 'women listen better than men'; 'men interrupt more than women'; 'men swear more than women'; 'women tend to gossip'. This was used to promote later reflection on attitudes and to assess changes in worldview developed in this short-term project. Also, some vital terminology of prosodic language features (without definitions) was introduced via traditional handouts.

ISSN 2038-3002 - Vol. 6, n. 2, 2015, pp. 383-401

The students worked in small groups of three to explore the central question and consider ways to find answers. Following discussions, they began by recording these attitudes in a poll on the network. Roles were attributed to methods, with one student creating their Glogster poster, while another searched definitions of Prosodic features of spoken language in a conventional 'dictionary way', while the other started searching news articles on the subject of gender and spoken language.

6.2 Week Two – the disruptive Mobile Element

The prompt in the second lesson was to choose one of three means of collating further live research by taking field notes using their own handheld devices or tablets issued by the college. A choice of strategy was given:

1. Making an observational study of groups in social contexts around or outside the college, recording and analysing the different ways that same gender or mixed gender groups used spoken language.
2. Filming interviews by Smartphone of the public recording responses to Vox Pops questions.
3. Creating surveys of either attitudes towards stereotypes about gendered use of spoken language or other set questions formulated by the groups.

These active methods deepened comprehension of the prosodic language definitions in situ introduced in the previous session. Responding to the opportunity to go mobile, students engaged with the cultural world away from the college by visiting the nearby shopping centre for information. Others went further beyond the allocated lesson times by interviewing, recording and making observations in their workplaces, in their home lives and in their friendship networks.

The resulting information, including the embedding of videos and sound files or assembling survey results into tables were transferred to the posters (Fig. 1 and Fig. 2), complementing existing knowledge in articles with what they discovered. Students with dyslexia, poor attention or low motivation created large levels of text, reflecting the different sources of research and combining multimodal formats.

ISSN 2038-3002 - Vol. 6, n. 2, 2015, pp. 383-401

Fig. 1. Example of a poster in development, combining mobile field research videos with online analysis and discussion of findings. Confidence improvement can be realised through Vox Pop interviews, while attention to detail in literacy may be improved through careful editing before online publication.

ISSN 2038-3002 - Vol. 6, n. 2, 2015, pp. 383-401

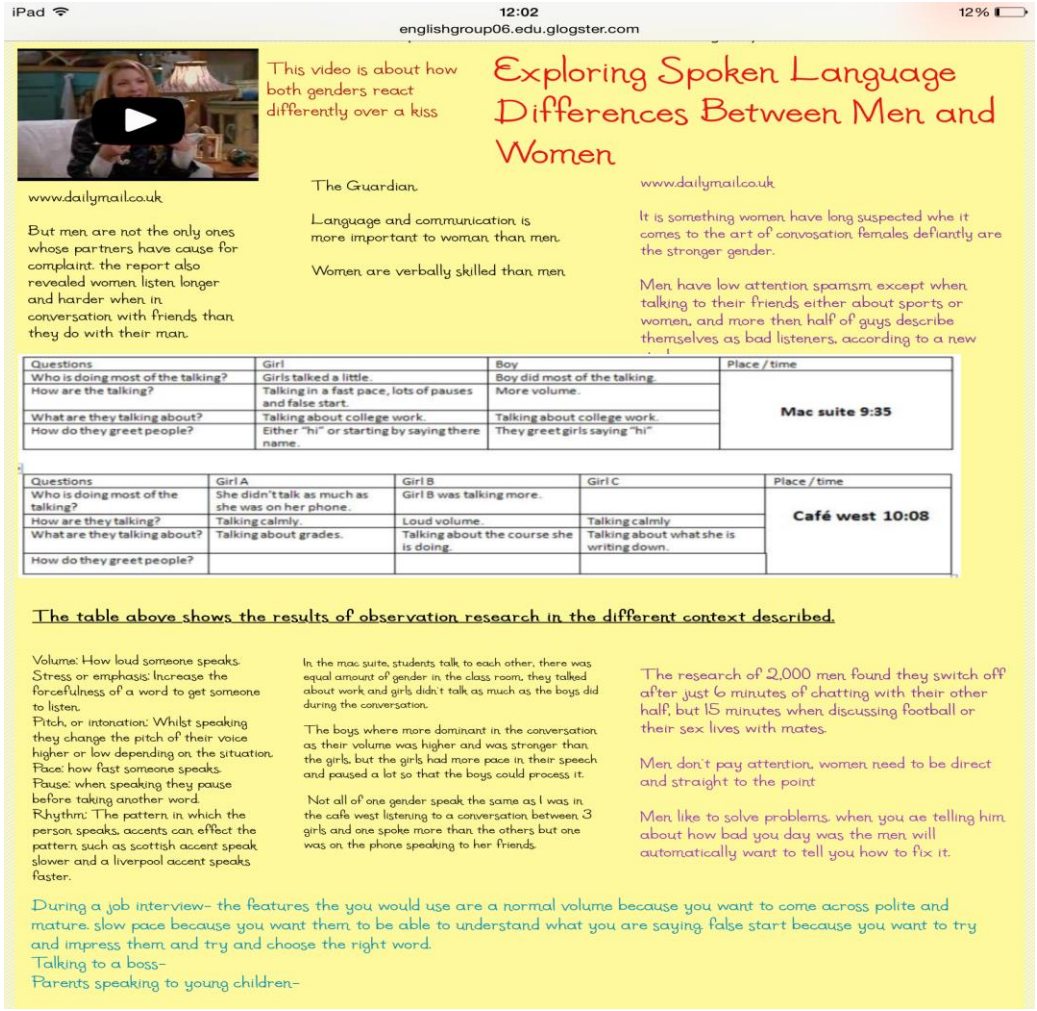

Fig. 2. The choice of mobile field research activities allowed greater personalisation, with stronger Maths students conducting surveys to complement findings. Here, activity has been situated within the prosodic features studied, linking the field research to the formal knowledge context.

6.3 Week Three

In lesson three, the students chose one of the other prompts from the previous lesson and continued mobile research to thicken and complement the analysis they had made of online news articles about gendered language use, further converging different types of literacies. In this session, social element of sharing knowledge was made by posting the results to the Edmodo network.

ISSN 2038-3002 - Vol. 6, n. 2, 2015, pp. 383-401

6. 4 Week Four

Attention needed to turn to the assessment of the syllabus. The teacher reminded the students of this task and urged a formulation of content information into conclusions.

The students demonstrated a sound comprehension of syllabus content linked to the unit, but the disorientation of what to do next suggests limits to SOLE as a strategy, because if assessment methods are not clear, content becomes de-contextualised from objective purpose. At the very least it suggests that the role of the teacher is less focused on transferring 'basic' knowledge, which may be collated from multiple sources, and more focused on process stages of what to do with the knowledge for formal purposes.

Activity in Week Four

Therefore, in week four, attention was turned to the generated content by others on the network and students began to make essay plans. An interesting habit emerged among the group. Some students, whose posters were not as prolific in detail, hurried to construct more data before the posters went online, while one pair of boys exported and put the (muted and limited) content of their poster onto the network. When asked if they thought they had enough research data for their assessments, they indicated they could use others work. This caused consternation with another group sitting close by, who viewed the visible nature of the public network as unfair, since the boys had made little effort to create content themselves. However, other students took great care and attention with making their work visually stylish before publishing it. Here can be seen a complexity to disruption that was anticipated: low-engaged students take the opportunity to borrow open source content without reflection, while more highly-engaged students pay more attention to personalising it.

Culmination of Week Four and intervention with the LTCA Theory

In aiming to summarise the results of these activities, students were prompted to reflect on their initial set of assumptions from the first lesson to consider how their attitudes might have changed according to the content they had gathered in the research project. It could be seen that content reaches a level of critical mass and some students became disorientated with what to do next with the data.

A pedagogical framework used to facilitate this is explained here.

The polling function of Edmodo.com was again used by the teacher-researcher of this study to construct knowledge as the final - and personalised - prompt. An approach was taken based on an instructional design strategy proposed by Wakefield, Warren and Alsobrook (2013), based on the Learning and Teaching as Communicative Actions theory (LTCA), deriving from Habermas.

ISSN 2038-3002 - Vol. 6, n. 2, 2015, pp. 383-401

In LTCA, four communicative actions are suggested as conducive to cognitive outcomes.

- *Normative actions*: these are outlined standards of behaviours or guidelines among students
- *Strategic actions*: instructions or directions of learning activities and tasks This is reflected by the teacher here, as well as, arguably, the form of standard, validated knowledge to a culture – 'truths' found in text books, and increasingly news articles, Wikipedia data, etc.

Up to this point, the communicative actions are not particularly dynamic and follow conventional means of following accepted notions of knowledge, directed by expert educators. However, the next stages allow for more sustained discourse and critical thinking.

- *Constative actions:* communication in which one participant makes a claim to truth, which may be countered by others and vociferous discussion and construction of negotiated agreement. Constative communicative discussion may see the critique of strategic-type knowledge.
- *Dramaturgical actions*: communication reflective of 'understanding' of knowledge, which often draws on 'lifeworld' taken to mean informal, subjective experience or other world knowledge and understanding. Its relevance here is in the mobile research gathered from the field and generated in artefacts, like tables of observational data, Vox Pops interviews, and surveys.

The final stage represents an opportunity for students to reflect on what they know in an ontological sense, more akin to self-determination and autonomy of thought processes.

A series of ten 'truth statements' were posted openly to the Edmodo wall by the teacher as declaratives of Constative actions. These were posted individually in a poll, for example, 'men dominate conversation in mixed gender groups'. The students could respond with agree/disagree or true/false responses, negotiating their own beliefs based upon mobile field research. The teacher recommended their responses were considered (not copied) and each response should draw upon their mass of data to support their reason for agreeing or disagreeing. While students did not post full answers to the platform beyond 'agree/disagree', they did support their viewpoints in dramaturgical statements based on the evidence they had collated in their final essays.

Ultimately, two distinct student types emerged from the project.

1. *low-engagement* students, who exploited the affordances of openness by copying ideas verbatim from the internet and took from others work posted to the network. These students consequently struggled to reflect on the

ISSN 2038-3002 - Vol. 6, n. 2, 2015, pp. 383-401

mobile activities and to formulate their own personal, constative responses as internal and personal.
2. *high-engagement* students, who created richer products from the mobile activities. Having engaged with it, they were more capable of articulating what they learned in the project that changed their attitude and assumptions from the start, related to the central question.

6. 5 Evaluation

Disruption to normal classroom environment behaviours was apparent once the collation of content to the posters began. Where students usually awaited directions, arrived late and unprepared, from the second lesson students now independently

- arrived on time and logged onto the computers to continue working without instruction
- returned energised from field research to upload findings
- designated roles to one another
- imported, uploaded and edited files
- made the designs of the accruing content on the posters more reader-friendly
- continued online searching
- problem-solved technical issues such as taking screen shots of things they couldn't copy and paste or download and helping others do so
- shared findings they made to the Edmodo wall without prompt by the teacher, reflective of inherent self-awareness in sharing their creative products in social network posts.

6. 6 Critique and interwining of theory and case study

Judging how successful these teaching strategies are based on formal literacy (as essay) seems a poor fit with innovative processes (praxis) with technologies. An example may be shown from observation of results of online search engine use in this case study: students search terms tended to be rigid and crude, replicating the entire assessment question to Google, resulting in quite generic information appearing on their posters. Most students went to the first set of existing knowledge found in the shape of articles; thus, content was copied directly from the Internet as trusted and pasted verbatim with little 'Constative' critique. This finding is nothing new to most classroom teachers, but it reveals a limited awareness of capability, self-determination and 'knowing how to learn' as proposed in Heutagogical papers. 'Copying' is a property of 'sharing' and is still regarded as sacrosanct, despite it characterising the tools of the era. 'Ownership' of content, made by sampling, remixing, challenging or complementing existing content, is a disruption to that problem, since it results in something more original: personally and individually customised.

ISSN 2038-3002 - Vol. 6, n. 2, 2015, pp. 383-401

7. Summary

If students are left to themselves to learn in a vacuum, as proposed in SOLE, the dilution of meaningful results may be unrealised. The intervention of the LTCA 'truth claims' enabled students to declare what they discovered, by challenging or accepting the notions, and thereby arriving at a point of knowledge building. It is clear that students cannot work in isolation to reach these conclusions alone, despite the ecology of resources provided to them – not, at least, yet. By enculturating mobile processes, the mobile technology becomes background to the pedagogical affordances outlined here. For this enculturation to occur, exam boards may need to design rubrics for such project-based learning that validate multimodal channels of technologies. In this way, the activities can be accredited and recognition of the importance of these process skills (communication, decision-making, planning, collaborative delegating of roles and responsibilities in groups) can reflect the world outside the classroom.

References

Alvermann D. E., Hutchins R. J. and McDevitt R. (2012), *Adolescents' Engagement with Web 2.0 and Social Media: Research, Theory, and Practice*, «Research in the Schools», vol. 19, n. 1, pp. 33-44

Barden O. (2014), *Exploring Dyslexia, Literacies and Identities on Facebook*, «Digital Culture & Education», vol. 6, n. 2, pp. 98-119.

Bauman Z. (2000), *Liquid Modernity*, Cambridge, Polity

Beaudoin M. F. (2002), *Learning or lurking?: Tracking the "invisible" online student*, «The internet and higher education», vol. 5, n. 2, pp. 147-155.

Bellingreri A. (2014), *La sfida dell'educativo nella società liquida*, in G. Elia (Ed.), *Le sfide sociali dell'educazione*, Milano, Franco Angeli.

boyd, D. M. (2008), *Taken out of context: American teen sociality in networked publics*. PhD Dissertation. University of California-Berkeley, School of Information. Retrieved October 7, 2015 from http://www.danah.org/papers/TakenOutOfContext.pdf.

Brown J. S., Collins A. and Duguid P (1989), *Situated cognition and the culture of learning*, «Educational researcher», vol. 18, n. 1, pp. 32-42.

Buckingham D. (2008), *Youth, identity, and digital media*, The John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning, Cambridge, MA, The MIT Press.

ISSN 2038-3002 - Vol. 6, n. 2, 2015, pp. 383-401

Cunningham D. and T. Duffy (1996), *Constructivism: Implications for the design and delivery of instruction*, in D. Jonassen, *Handbook of research for educational communications and technology*, New York, Macmillan, pp. 170-198.

Dewey J. (1916), *Democracy and education*, New York, McMillan.

Gee J. P. (2005) *Semiotic social spaces and affinity spaces: From the age of mythology to today's school*,'in D. Barton and K. Tustin (Eds.), *Beyond communities of practice language power and social context*, Cambridge, England, Cambridge University Press, pp. 214-232.

Gee J. P. (2014), *What video games have to teach us about learning and literacy*, New York, Macmillan.

Giddens A. (1991), *Modernity and self-identity: Self and society in the late modern age*, Stanford, CA, Stanford University Press.

Goffman E. (1990), *The presentation of self in everyday life*, London, Penguin.

Hase S. and Kenyon C. (2000), *From andragogy to heutagogy*, Ultibase, Royal Melbourne Institute of Technology, December.

Hopkins S. (2002), *Girl heroes: the new force in popular culture*, Annandale, Pluto Press.

Illich I. (1992), *In the Mirror of the Past: Lectures and Adresses, 1978-1990*, New York, Marion Boyars.

Ito M., Gutierrez K., Livingstone S., Penuel B., Rhodes J., Salen K. and Watkins S. C. (2013), *Connected learning: An agenda for research and design*, Digital Media and Learning Research Hub.

Jenkins H. et al. (2006), *Confronting the challenges of participatory culture: Media education for the 21st century*. Retrieved October 7, 2015 from http://files.eric.ed.gov/fulltext/ED536086.pdf.

Kearney M., Schuck S. and Burden K. (2010), *Locating mobile learning in the third space*, in M. Montebello, V. Camilleri and A. Dingli (Eds.), *Proceedings of mlearn2010: 10th world conference on mobile and contextual learning*, University of Malta, Valetta, pp. 108–115.

Lave J. and Wenger E. (1991), *Situated learning: Legitimate peripheral participation*, Cambridge, Cambridge University Press.

Livingstone S. (1999), *Young People and New Media, Childhood and the Changing Media Environment*, London, Sage.

Mallan K. (2009), *Look at me! Look at me! Self Representation and self-exposure through online networks*, «Digital Culture & Education», vol. 1, n. 1, pp. 51-66.

McLoughlin C. and Mark JW L. (2007), *Social software and participatory learning: Pedagogical choices with technology affordances in the Web 2.0 era*, «ICT: Providing choices for learners and learning. Proceedings ascilite Singapore 2007», pp. 664-675.

Mejias U. (2005), *A nomad's guide to learning and social software,* «The Knowledge tree: An e-journal of learning innovation». Retrieved October 7, 2015 from

ISSN 2038-3002 - Vol. 6, n. 2, 2015, pp. 383-401

http://knowledgetree.flexiblelearning.net.au/edition07/download/la_mejias.pdf.
Merchant G. (2006), *Identity, Social Networks and Online Communication*, «E-Learning and digital media», vol. 3, n. 2, pp. 235-244.
Mitra S. (2006), *The hole in the wall: Self -organising systems in education*, New Delhi and New York, Tata - McGraw - Hill.
Nikolov R. (2007), *Towards web 2.0 schools: Rethinking the teachers professional development*, Working Joint IFIP Conference: WG3.1 Secondary Education, WG3.5 Primary Education Informatics, Mathematics, and ICT: a 'golden triangle' (IMICT 2007), 2007, Boston, United States, pp. 10.
Pachler N., Ben B. and John C. (2010), *Mobile learning: structures, agency, practices*, New York, Springer.
Pangrazio L. (2013), *Young people and Facebook: what are the challenges to adopting a critical engagement?*, «Digital Culture & Education», vol. 5, n. 1, pp. 34-47.
Potter J. and Shakuntala B. (2012), *Social media and self-curatorship: Reflections on identity and pedagogy through blogging on a masters module*, «Comunicar», vol. 19, n. 38, pp. 83-91.
Prawat R. S. and Robert E. F. (1994), *Philosophical perspectives on constructivist views of learning*, «Educational Psychologist», vol. 29, n. 1, pp. 37-48.
Robins K. and Webster F. (1999), *Times of the Technoculture*, London, Routledge
Ryan R. M. and Edward L. D. (2000), *Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being*, «American psychologist», vol. 55, n. 1, pp. 68-78.
Semetsky I. (2004), *The role of intuition in thinking and learning: Deleuze and the pragmatic legacy*, «Educational Philosophy and Theory», vol. 36, n. 4, pp. 433-454.
Siemens G. (2004), *Connectivism*. *A Learning Theory for the Digital Age.* Retrieved October 7, 2015 from http://www.elearnspace.org/Articles/connectivism.htm.
Stald G. (2008), Mobile identity: Youth, identity, and mobile communication media, in D. Buckingham (Ed.), *Youth, identity, and digital media*, The John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning, Cambridge, MA, The MIT Press, pp. 143-164.
Stern S. (2008), *Producing sites, exploring identities: Youth online authorship*, «Youth, identity, and digital media», vol. 6, pp. 95-117.
Traxler J. (2009), *Learning in a mobile age*, «International Journal of Mobile and blended Learning», vol. 1, n. 1, pp. 1-12.
Verbeek P. (2005), *What things do: philosophical reflections on technology, agency and design*, University Park, PA, Pennsylvania State University Press.

ISSN 2038-3002 - Vol. 6, n. 2, 2015, pp. 383-401

Vitak J. (2012), *The impact of context collapse and privacy on social network site disclosures*, «Journal of Broadcasting & Electronic Media», vol. 56, n. 4, pp. 451-470.

Wakefield J. S., Scott J. W. and Metta A. (2011), *Learning and teaching as communicative actions: A mixed-methods Twitter study*, «Knowledge Management & E-Learning: An International Journal (KM&EL)», vol. 3, n. 4, pp. 563-584.

ISSN 2038-3002 - Vol. 6, n. 2, 2015, pp. 383-401