

THE UNIVERSITY OF HULL

An anatomy of a Social Network: Momentum, Enhanced Engagement and Social Media Fatigue: a Qualitative Case Study of Situated Literacy and Engagement among Further Education re-sit students in the UK

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Abstract

The thesis presents a case study of how an online social network supported the classroom learning experienced by students undertaking the GCSE English re-sit. Inherent to the study is the problem of engagement and motivation among students ambivalent to this compulsory curriculum. The case study compares uses of the network between 16-19 year olds and adults in a Further Education college in the northwest of England.

A theoretical model was constructed from a content analysis of communication posts across two years and four separate groups (n = 87) using the social network Edmodo.com. This was complemented by interviews with 15 students and observations of blended (classroom-based) use of the network. Coding of network communications showed how high levels of engagement assisted the negotiation of actions towards goals through co-operative communities of practice. High instances of affective disclosures in the network reveal apprehension to mobile provision, as well as opportunities for transformed perspective framed as decision-making thresholds.

Students' posts lead to a profiling based on the frequency and types of communication posts made to the network, enabling insights into use and the design of a Continuum of Engagement. The theoretical continuum illustrates how *momentum* occurs through increased activity across time through socially cohesive communities that can help orientate learners to objectives, albeit, mainly among adult learners and specifically where blended to classroom use. Further conceptualisation of the inhibitors that exist with younger and peripheral members are presented as *ontological thresholds of online presence* – barriers to community participation based upon individual's affective dispositions. These factors may contribute to a sense of resistance to online learning, labelled *Social Media Fatigue*, indicating divergence with social learning models. Underscoring all activity are technological features perceived variably by students as affordances or as inhibitors to participation. Pedagogical strategies and interventions by educators are recommended that illustrate how students can be supported to negotiate ontological thresholds creating *momentum* in engaged agency towards increased self-determination.

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Chapter 1 Introduction

“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: 88)

1.1 Overview of the Thesis

This thesis investigates the progression experiences through the English GCSE syllabus by groups of students in a Further Education College in Lancashire in England as supported by assistive technology in the shape of a social network. This frames the thesis into a case study of four groups of learners by constant comparison of their experiences.

A growing corpus of research explores potentials of social media as learning technologies, though it largely resides in higher education or schools, rather than the tertiary sector, despite proposals in the influential Further Education Learning Technologies Action Group (FELTAG) report (2014), outlined in 2.1 ('FELTAG and digital significance'). A review of literature was taken to contextualize the study exploring opportunities and tensions associated with importing social media use into institutions, which raise expectations of achievements and modes of learning. Tensions are summarised as teachers' and students' capabilities and engagement with those technologies as a potential barrier to full realisation of claims of affordances that surround learning technologies.

The study adopts an Interpretive case study methodology with mixed methods of qualitative data collected as semi-structured interviews, and a content analysis of text-based artefacts communicated through a social network used in the study. Using Activity Theory as lens (Engeström, 1999) in combination with concepts related to heutagogical practice (Hase and Kenyon, 2000) with social learning paradigms, the

study identifies a range of engagement actions mapped to activity within the network. Social networks are proposed as sites for Communities of Practice (Lave and Wenger, 1991) that situate learning as contextually driven which could promote digital affordances (McLoughlin and Lee, 2007) – the advantages gained in skills or learning competencies – as complementing classroom experiences in a blended learning process to improve student’s engagement and confidence. The findings show tensions within engagement to mobile learning with the population in this research. More affinity to the form was found with adults than the Under-19 population, but high levels of social binding offline were necessary for online integration of the adult community, while the younger population appear to lack essential motivations necessary for self-supported learning. This suggests digital skills needs to be designed into provision to support the affordances found within uses by high-engaged participants. These findings have significance given policy recommendations for more autonomous learning and online presence recommended in FELTAG (2014).

This chapter sets out the research problem and purpose of the study, before stating the research questions to address this. It then outlines the Further Education context for the study, alongside the curriculum studied, as central to the research questions which hold ‘disengagement’ as a potentially national phenomenon of the student participation involved in the problem. Key terms used throughout the thesis are based on literature or author’s perspective, which will orientate readers to different conceptions of some terms. It then presents the theory and methodological approaches that were adopted and concludes with the limitations of the study.

Following this Introduction, a literature review is made. It begins by outlining views of existing tensions surrounding the implementation of learning technologies within institutions. An argument is made for learning technologies as instruments for pedagogical change aligned to theoretical objectives supporting the case study. Opportunities (affordances) of utilising Learning Technologies were extracted from research; these were identified and segmented for evaluation in the case study analysis. In the next chapter, the social and individual nature of mobile learning experiences is discussed in personalised terms, with reference to identity, (dis)engagement and emotional and affective experiences of learning. Following this, the literature review considers social and individual nature within community terms,

discussing models that support learning technology curriculum design. The thesis then reviews comparable literature arising from the potentials made possible from using Social Media in analytical areas, which helped to inform the methodological choices for the research design. Finally, the methods of data collection and analysis, with findings and a discussion are presented.

1.2 The Research Problem

The challenge of raising literacy standards is an ongoing issue in the UK. English is firmly embedded into the National Curriculum for England as a core subject. According to recommendations from the Wolf Review of Vocational Education (Wolf, 2011), students who fail to secure a C grade at GCSE in school should repeat the qualification until they do so (up to 19 years of age). The Policy Report (Porter, 2015) states that 27% of students in 2014 taking English in schools failed to achieve a grade C. The 2015 annual report from the Government's Office for Standards in Education, Children's Services and Skills (OFSTED) suggests a divide between schools performing better in the South of England than the North. With regards English, boys tend to perform less well than girls. Weak secondary school performance (the usual level of high school before Further Education) is linked to progression in the report, with less students likely to go on to Higher Education or "any study or employment at all, or are not completing what they started" (OFSTED, 2015: 47). In re-sitting English, Further Education (FE – the tertiary level beyond schooling focused on vocational provision) colleges performed worse than alternative providers (Sixth form colleges and school sixth forms, which are focused less on vocational training) with percentage of success at English grade A-C in 16-18 year olds in 2013/14 at 7% (OFSTED, 2015: 51). Students in FE study more vocational courses, compared to Advanced level provision (normally associated with Higher Education progression), and largely come from low-income backgrounds, so prior attainment is used to explain the poor performance in the sector.

The 2015 OFSTED report makes clear that for FE, reputation – as well as future funding for institutions - can hinge on provision of English and Maths, highlighting that the requirement for re-sitting these curricula has:

“...dramatically increased the number of learners required to take up this study or risk not having their programme funded. In the weaker providers, attendance and punctuality in English and mathematics classes was a common problem. It is unsurprising that learners choose not to participate given the issues often raised about the quality of teaching in these providers. A typical report on an inadequate college described it in the following way: ‘teaching and learning in English and mathematics are poor, both in discrete lessons and when taught alongside learners’ main studies.’ Problems with the delivery of English and mathematics did not only affect the performance of the weakest providers, but was also the most common reason colleges were judged to be good rather than outstanding.” (52: Ibid)

The report takes a further critical view of the role of provision to meet the needs of learners, stating that “the inability of many general FE colleges to successfully adapt the delivery of GCSE English and mathematics to dramatically expanded learner numbers had a negative impact on the quality of teaching in those subjects.” (53: Ibid)

This demand for courses and lack of professional ability to make quality provision for those students has been highlighted in media reports regarding this increased number of students arriving to the sector. Numbers for re-take courses in Further Education institutions swell and time/resource constraints making it increasingly difficult for such courses to be delivered effectively. Courses typically run alongside main vocational courses and in some cases affect attainment and overall progression. Accommodating such numbers from a diverse range of students (of ability – as some start the GCSE after progression from the alternative Functional English qualification (designed for FE as a more ‘real-world’ qualification to the schools-based GCSE, normally comprising media texts as opposed to literary ones) – from different vocational courses, with diverse course progression objectives, alongside a swell of adult provision) puts pressure on colleges, who may not have the resources to make provision for a qualification designed for school students. In colleges, time is such a resource, with students tending to sit the two-year English GCSE certificate in around 32 weeks in normal delivery of once a week, 2 hour intensive lessons. The national average pass rate from re-sits in the first available data in 2013 was 38% (Porter, 2015). Porter’s report points to the need for extra funding for effective delivery, which comes when

funding to FE has been reduced by the Government. The report also finds that the majority of school students failing to secure grade C are likely to enter into, and undertake the re-sit in, FE. It follows that alternative provision might need to be made, to meet both the expectations of students and fit with the culture of FE. The report concludes with the following recommendations for effective delivery:

- Smaller groups to focus on specific interventions
- Focused diagnostic of needs
- Intensive courses for potential success in November (following September start)
- Encouraging staff training expertise
- Dedicated space and specialist resources for retakes
- Sharing expertise with other centres
- Mixing classes of adults with 16-18 students (as motivation might 'rub-off' on younger students)

Further, it suggests that funding in FE be supported by levies from local schools where students arrive from if those students failed the GCSE grade. This detail is proposed because of the "significant burden on FE colleges in particular who unlike other post-16 institutions are faced with a unique set of challenges around this area: larger volumes of re-sitting students... and, crucially, a lower proportion of students with a D grade (who require less intensive teaching) as opposed to those with an E or below..." (2015: 15). Given the lack of specialist staff, quality resources and provision identified, the high numbers of the re-sit cohort, the lack of general motivation and engagement of students, combined with the focus of students on vocational instruction, it might be fair to assume that fulfilling the recommendations outlined above will prove difficult for colleges.

A close comparison to the re-sit phenomenon being implemented can be drawn from the meta-analysis studies made by Hattie (2009) on effective learning is to the conclusions drawn on retention, which is to hold students back a year. Hattie outlines the implications of retention as negative in terms of academic achievement and motivation: "...retention does not generally improve achievement or adjustment for developmentally immature students, and increases the risk of dropping out of school

twofold.” (2009: 98) While based on schools research, the significance in an FE context is clear: that the compulsory re-sitting of the English GCSE can be detrimental to students’ staying in colleges, which students otherwise joined to focus their training on vocational courses. Hattie continues that the evidence is emphatically negative and that the effect of being retained twice (to repeat) almost guarantees that students will drop out.

The policy for the GCSE as a compulsory qualification in a post-compulsory sector appears to be a short-term solution to a deeper issue: learners re-taking core qualifications in time-intense conditions having already failed to succeed across several school years may only prohibit in-depth engagement with the syllabus and have negative implications for wider study; time, staff and resources are often under strain in core subject departments as a result and colleges – under scrutiny of performance – are judged on the success of those students.

The essence of this research problem is the engagement of learners to succeed on the course, coupled with the quality of FE provision to support those learners attainment against the context of reduced funding. New strategies arise with the move towards a digitally-driven sector that is utilising learning technologies as an access point to support and improve learners’ experiences and engagement. Knowledge of pedagogical strategies to support online learning experiences is emergent. This study aims to contribute to an understanding of students’ experiences of using assistive technologies to navigate a course and how those technologies impact on engagement as a core barrier.

1.2.2 The Research Purpose

Supportive online practice as blended within situated learning spaces is proposed as a working structure to support student engagement through a course at a repeated attempt. Aspects of units, rather than entire units as FELTAG might have it, of the English GCSE syllabus, for example, (the researchers own subject specialism) may be effectively delivered as augmenting classroom meetings. Some institutions have already put in place opportunities for learner support via telephony, or by distance, but it remains to be seen whether students with inherent literacy issues can experience success (defined as attainment, retention on course, engagement with subject to

progress to other areas of lifelong learning, and qualification success) through such mobile access. Yet it has become a recent recommendation of the influential FELTAG report (23: 2014) regarding College funding, which proposed that FE institutions provide 10% of courses online by 2015/16 and, to further incentivise funding for providers, by increasing this to 50% in 2017/18. Funding, the report states, “should encourage ‘learning presence’ not ‘physical attendance’” (Ibid), which points towards the augmentation of learning technologies as mobile learning spaces for students to interact and operate within.

The authors of the report have captured the imagination of providers and educators under an umbrella FELTAG (‘Further Education Learning Technologies Action Group’) movement (comprising practitioners and colleges, but also National Agencies such as the Education and Training Foundation, and companies like the Joint Information Systems Committee (JISC), Learndirect, Pearson, Blenheim Chalcot and Toshiba.). FELTAG is shaping digital provision and skills in teaching staff, but there remains apprehension and confusion regarding the 10% proposal. This was clarified by the Skills Funding Agency as “Providing learners with improved access to learning outside the classroom, increasing their ability to learn and to assess themselves at their own pace as well as to develop new digital skills and networking opportunities to enhance employability.” (Skills Funding Agency website, 2014)

The use of online social networks as supportive to learning approaches in order to promote and sustain engagement through mobile access, and as a source of collaborative and autodidactic (independent) learning is proposed as a method of creating a Community of Inquiry (Garrison, Anderson and Archer, 2000) between learners and educators, where elements of teaching, socialisation and cognitive practice come together through wide participation online. The present study seeks to create online Communities of Practice through Situated Learning (Lave and Wenger, 1991), rendered as heightened participation through three elements: mutual engagement (as relationships between members), joint enterprise (as a group understanding of binds and goals), and shared repertoire (as resources built and shared by the community members)

The study aims to identify reflections or improvements in learner behaviour and attitude between the classroom and the online network. If successful engagement is realized, it is envisaged that the use of social networks to enable these elements may be effective and transferrable to other curricula and groups with similar populations. As has been shown elsewhere (Livingstone and Bovill, 1999) the issue of access to technological resources, or what abilities are brought to use them, is not straightforward with learners in the FE sector, so a central consideration of the research is in students' attitudes and experiences towards these remote forms of activity, revealing tensions and difficulties in the pedagogical shift towards more independent study.

1.2.1 The Research Questions

- What do the attitudes and perceptions of users reveal about online networks and communities as supporting engagement among FE re-sit students?
- How do mobile social networks and communities' impact on literacy practices?
- How does the realisation of affordances complement and facilitate understanding of elements of co-operative or community models of engagement?

These questions are discussed in further detail following the Literature Review in 4.5.

1.2.2 Personal Statement

The researcher's role as FE lecturer began in Media Studies as a specialist, before moving into English teaching, and specifically the re-sitting of the GCSE course. This coincided with publication of the Wolf Review (2011) recommending literacy standards are improved and upheld in FE – implemented generally as a GCSE re-sit. In this early teaching of the course, the researcher (as a Newly Qualified Teacher) followed a design of the curriculum based on intensive sessions (one 2-hour lesson per week).

Disenchantment of re-sitting courses – commonly accompanied by disorientation as to why they must re-sit the course – leads to a situation of pull-and-push with many students, whose engagement and confidence is often low. In taking an MA in Media and Education at the Institute of Education in London, the researcher undertook a research project comparing use of social media between schools in Germany and Cambridgeshire in the UK. The process, following a literature review, informed

practice for this overall project. The researcher found that transferring technologies into teaching without supporting pedagogical purpose undermined claims in the literature of the affordances, positioning them as exaggerated, especially by non-practitioner commentators. Consequently, the teacher and, importantly, the student voice need to be configured more centrally to the research design as far as possible. FELTAG (2014) framed great potential in using social media to support learning processes in the researcher's context, but an absence of literature that critically informs practices that may come to shape provision and practice was noted.

Multiple issues confront paradigm changes in the culture before policy can direct learning technologies as widespread normative practice. The study is defined by its population of disengaged students with low self-perceptions of ability. Research questions approach how learning technologies construct communities of practice to support learning provision. Technology-enhanced learning research is often focused on affordance, rather than reality, and increasingly on unclearly defined assumptions of constructivism as a learning theory that is 'student-centred' and made against unrealistic contexts of transmitted knowledge by teachers to students. Specific strategies are needed for constructivist frameworks that would support and inform pedagogical practice. Furthermore, notions surrounding student-centred learning has been extended through Heutagogy (Hase and Kenyon, 2000) as an approach that improves self-determination and self-efficacy, which could have rich value to the context of FE and with learning technologies, yet such qualities as described may, again, be based on inherent abilities and confidence not associated with re-sitting, low-literacy students. Finally, the recommendation of manoeuvring learning online is perceived as fraught with potential tensions not commonly explored and as a risk to reduced funding from a sector supporting some of England's most disenfranchised and at risk students.

1.2.3 Research Design

The research was designed in an inductive manner, stemming from previous research into emergent technologies and associated Web 2.0 affordances of social media (the terms Web 2.0 and affordances are defined at the end of this chapter). Data from a social network for learning (www.edmodo.com) was collected in two phases across two years, with iterative processes narrowing holistic searching to identify research

gaps, and generate questions and findings as emergent. Interviews with students were made across the phases to complement this content analysis. This took on an Interpretivist paradigm, as it is utilizing participants' perceptions of experiences with which to construct knowledge. A "fledgling methodology" (White, Drew and Hay, 2009: 21) was adapted with principles of a case study based on the situated practices and activity in the social learning network Edmodo.com. Data were principally made up of artefacts produced by the student population in the shape of their communicated posts – whether these were questions, statements, declarations, materials shared, etc. Additional data were collected in the form of semi-structured face-to-face interviews with students and questionnaires. These strategies allowed a picture to emerge of the students' experience in using the network to facilitate learning, to engage within the community of learners and to interact with their teacher. Theoretical analysis of the data followed stages of rigorous procedures as reflexive, according to Charmaz (2006), with initial open coding moving to more focused treatments resulting in categories bound to a theoretical coding approach, helping to provide explanations of the data collected and the experiences of these students in using online forms to situate and support their learning.

1.2.4 Rationale for a Case Study

According to Newby (2010) a case study complements a naturalistic form of research enquiry when it is within the environment of investigation. It is an approach useful for events and circumstances where there is a problem, such as the one set out here and is characterised in purpose by exploration, explanation and description. One of its drawbacks, as shown in the limitations section (1.6.2), is in the relationship between the specific Case Study and how any findings can be generalised. Newby (Ibid) answers this by proposing that research looks for patterns and variation in cases that may reasonably represent the characteristics of a typical context. Attempts to show how the college in the study represent 'typical' are made in the next contextualising sections, but – briefly – it can be argued that the value of the case study approach made here is that it reflects a national situation in a microcosm of typical I criteria: types of students (mixed ages, abilities, backgrounds and vocational pursuits clustered together under compulsory instruction to repeat the English GCSE qualification); pressures on a teacher, department and institution; capability to deliver a syllabus students are reluctant to engage with – these are generic problems as shown in this

chapter. The role and purpose of the case study approach is not to suggest generalised findings, but – as Newby (2010: 253) observes – that it seeks:

- To understand an issue (disengagement with re-sitting students)
- To illustrate exemplar potential (the online social network as supportive to objectives)
- To illustrate commonality (what elements of this form of learning may be operable)

Case studies usually adopt approaches for in-depth analysis, which is represented here by the four separate content analyses of groups involved in online Situated Learning activities across both phases. Although the Interpretative research paradigm in the analytical outcome of interviews is not a usual fit with a Case Study approach, the methods of analysis that seek to explore and explain the perceptions and meanings (of learners' experiences) support the development of theory arising from phenomena of online learning, as fitting a Case Study approach. While such theory may be narrowed (Westbrook, 1994, Lincoln and Guba, 1985, Charmaz, 2006) by context, others can test or develop theoretical findings for generalizability. Where such naturalised situations as classroom and online learning may be constrained for researchers as insiders (for example, in terms of longitudinal access or regular observation), a case study approach has opportunity in this environment where a researcher-as-teacher was taken as the approach. The further implications of limitations and constraints to this are discussed more fully in 6.0, the Data Collection chapter.

1.3 Summary of the FE Sector as Context

In order to further illuminate the research problem in its context, this section will describe the FE level in England. Given current uncertainty surrounding its future, it is difficult to record a static illustration of the sector at a standstill, as it is prone to imminent (and perpetual) change from political will, particularly under the duress of austerity in public sector funding. An attempt is made here to portray these present insecurities in terms of politics, funding, future directions and research based on the sector.

The Conservative Government elected in May 2015 aimed in its manifesto to commit to continued reform of public finance spending to reduce the national deficit. Even prior to the General Election, the Conservative Party indicated intentions to continue to protect schools funding from the previous Parliament, while up-scaling skills training, access to university, widening Apprenticeship schemes and to improving Further Education. Of significance to FE, is the provision of A-levels. With the continued proliferation of Academies and Free Schools (self-governed and not adherent to the National Curriculum), promoted by this Government under its previous Secretary of State for Education, Michael Gove, and continued by its current one, the introduction of Studio Schools (where focus is shaped on specialist training in local economies) and University Technical Colleges (offering 14-18 year olds specialist training in technical and science subjects), the UK education system may be perceived, for better or worse, as increasingly fragmented from conventional routes. This potentially increases options and routes for students, and impacts on conventional provision. More schools are starting to provide A-levels, potentially reducing numbers of students pursuing that direction in FE centres. Pledges on increasing Apprenticeships, traditionally a realm of training offered in vocational provision in FE, but coming within the remit of the Department of Business, Innovation and Skills means that those numbers may come to be engaged directly with employers, further reducing vocational numbers. The cost of these aims is to be partly met by reducing funding for FE learners, impacting on the funds existing institutional providers depend on from the Education Funding Agency. Further integration with the private sector will aim to promote apprenticeships with Local Enterprise Partnerships (LEPS) – regional employers working with Government to stimulate local training for local employment – and possibly through local authorities and trade unions offering traineeships. Devolution of funding will enable partnerships with LEPS from European Skills Funding and from the Adult Skills Budget, meaning an impact on capital spend for adults in FE. There are wider implications for Welfare support, diminishing dependence of young people into that system by capping benefits and ensuring people “earn or learn” (Queen’s Speech to Parliament, 2015).

Ultimately, as the traditional centres for all-purpose post-16 education, FE colleges will be affected by this fragmentation, possibly with college mergers or in those colleges complicity to the wider initiatives for employment based training. Equally, there is the

potential for FE colleges to widen provision to post-14 apprenticeship routes. The recommendations of FELTAG when juxtaposed with reductions in funding are a wider consideration of the research problem of this study, specifically if online networks can be instrumental to successful engagement and provision for the curriculum of study and what pedagogical principles enable effective situated practice.

1.4 Context of the college in the study

This section is provided to briefly describe the demographic of students in the locality, supported with references from the Local Authorities and Government websites. This information is presented to help contextualise the reader and the participants' experiences and to illuminate some of the following boundaries and limitations in section 1.6.

The Further Education College participating within this study is based in Lancashire in a 1960's new town, designed and built on the basis of existing manufacturing provision as large-scale employment, which became dated soon after migration to the area began. Unusually for a town of its size and in a region of large towns, it has reduced transport hubs and no railway link to those surrounding boroughs, which may hamper abilities to travel for work. The borough was recently rated 164th in the most deprived areas of 326 districts in England; employment is supported in the immediate demographic by retail, service, manufacturing and agricultural sectors that have reported growth for employees. From the 2011 census, 34% of the town's population recorded having no qualification. The college is a focal point for local educational provision (a beacon college) and serves outlying areas, three of which, according to OFSTED's 2015 national report, have schools that provide "lower than national GCSE attainment and make less than national levels of expected progress" (2015: 14). The region is singled out nationally as a cause for concern regarding the quality of its secondary schools.

The salient points to be taken for this account describe the demographic: the problems in recent times in the secondary education schools system that serve the college and the good employment opportunities; although these are bounded by industry and may be perceived as low level careers, they may be attractive to students leaving school or

in college with poor results and for the adults working in those industries who have aspirations for different opportunities, so undertake courses at the college.

1.5 Significance of the study

In exploring attitudes and experiences of the implementation of online social networks into teaching and learning contexts, the study aims to gauge whether such domains, highly participatory in the social realm, represent potential methods for community learning, where emergent learning paradigms framed around technology, such as Heutagogy (Hase and Kenyon, 2000) impact on engagement with the research population to the course of study. Using data arising from this study as a treatment, it aims to understand whether such platforms as online social networks, support mobile learning and, if so, what affordance and difficulties are experienced by students in their implementation. As such, an important area of the study looks at the relationships between students within such spaces, student attitudes towards varying intervention strategies utilising the network, and perceptions of how students view networks as having any impact on their teaching and learning experiences. This is made in order to attempt an evaluation of the potential of such platforms in facilitating better independent learning approaches to alleviate pressures identified in the research problem.

The study has a practical aim: a critically realistic evaluation of technologically determinist proposals in FELTAG (2014) for online delivery, situated within a wide-ranging national context: the compulsory re-sit of a course for disengaged students in a post-compulsory environment.

Methods are often presented positively (Leslie and Murphy, 2009; Greenhow, Robelia and Hughes, 2009; Cochrane, 2014) in reports highlighting affordances and showcasing the 'best practice' of digital provision, or shared as informal case studies on 'Bring Your Own Device' for learning (JISC, 2015). Such reports have little critical and objective discourse examining any tensions or consequences to technologically determinist positions on learning. Throughout the 4-year life of this study, the researcher attended conferences and read reports where such 'best practice' cases in digital provision were celebrated. While best practice is always to be aspired towards,

it was rare to encounter examples made in settings other than with highly motivated, high performance students.

At the onset of the study, a preliminary literature review aimed to draw upon the multiple voices in academic research that urge caution over the expectations and realities implied by technology enhanced learning. By the end of the study, the culture has driven headfirst into the coupling of delivery with technology, as if all stakeholders – and principally those of the student and staff – take to this provision seamlessly, regardless of any hesitancy for criticality advocated by writers such as Selwyn (2011). This study aims to address the transition phase in the paradigm shift of a technologically enculturated sector by exploring empirical activity generated from online delivery, by listening closely to students and exploring uses of social media in learning contexts. It takes an arbitrary view of technology enhanced learning, positioned to reflect a critical perspective of online delivery for a demographic susceptible, or even vulnerable, to changes in provision beyond their sphere of influence.

It may therefore, have value to Governors and leaders in educational settings moving towards digital provision where pedagogical theory does not underscore practice. The theoretical model presented here may help to shape provision for teachers unsure of digital frameworks and how they may construct meaningful activity through blended approaches. This study takes into account the affective and social factors in learning, presented within as emotional and attitudinal ones in students whose self-perception of ability and confidence to overcome barriers can be low. This may point to a need for improved quality in face-to-face support or reformed provision. In this sense, it is a modest contribution to debates over the substitution of formal, traditional teaching with digital provision. Instead it argues for assistive technologies as augmenting time-intensive courses as an extra level of provision, not a replacement source.

The theoretical model emerging from this study takes into account the marginalised voices of students prone to becoming NEET ('Not in Education Employment or Training') from a bottom-up level. It tracks affordances that contribute to gains in identity performance and academic engagement that may support the knowledge base of those areas. The thresholds of digital literacy involved may have potential for

transference to any course where online situated learning occurs and where there is a requirement for teaching staff to negotiate and construct meaningful participation. This is plotted through the exploration of seeded interventions or triggers, which can be re-enacted by other educators, especially those in language arts subjects.

1.6 Boundaries, Limitations and Assumptions

1.6.1 Boundaries

The study is bounded in geographical and temporal terms. The participants were sets of students on the English GCSE re-sit course in a Further Education college in Lancashire. It ran between 2013- 2015, spanning two academic years of study (September to June), with each cohort normally anticipated to complete the course in one academic year and achieve a C grade or above. This is complicated by the nature of the research problem - the engagement factor - so that some students who failed to achieve a pass in the first year repeated again in the second year and had an increased awareness of the use of the social network to support their learning. These students were factored into interviews alongside others who took it once, with successful results, or unreported at the time of writing the final thesis for publication. The other boundary is that the syllabus is time-intensive, with only one 2-hour lesson timetabled to students each week and many absences typical to the nature of this course. These boundaries are normal and form part of the research problem.

Boundaries also exist in terms of these students access to technology: although there is provision within the college for computers, this rests on their propensity for self-study outside of the classroom (taken into account in Chapters 8-9 Data collection and Analysis). Given the relative socio-economic deprivation in the location of the college outlined earlier, it may be assumed that this causes limited access to personal technologies, but many students ICT skill-sets were also seen as limited through the course of studies, particularly with adult groups. Some students did not own smart phones or have personal access to computers at home, which would have allowed them access to the social network used. Furthermore, some did not have their own email account.

As part of the normal course of study, computer access in the curriculum was arranged at the college by the teacher, but where possible digital literacy and ICT skills (i.e. showing students how to attach documents, how to use basic functions of Microsoft Word programmes) were made in lesson times alongside normal syllabus activity. This instruction helped to support understanding of the network's primitive functions. Again, these boundaries are taken into account in interview questions.

Observation of practices interacting with the network (where blended to the classroom) was afforded the researcher as the teacher also. The study is not intended to be a generalized national portrait of students' uses and values of situated learning, but a micro-level study with the population available to the researcher. Some boundary must be recognised in the comparison of the groups as analytical method: in Phase One, the Under-19 student participants, who are of particular interest in this study, were bundled into a mixed-group with adults, as fitting the timetable within the college. While this is a working recommendation of improving results in the 2015 Porter report, it makes comparison to the segregated Under-19 participant population in Phase Two less clear, and thus, potentially, bounds comparison to other contexts where students are either routinely segregated or mixed by age group. Furthermore, making comparison of 'engagement' between Adults studying English as a standalone qualification at night and cross-college vocational students is compromised given the voluntary conditions that those adults study under. Comparison is a tool of analysis and this is taken into account during the methods undertaken and within the findings discussion.

1.6.2 Limitations

The sample for the case study content analysis method was inclusive to all students who posted activity to the network. The semi-structured interviews were more problematic. In the first phase of data collection (2013-2014), questionnaires were distributed to all students resulting in mixed responses and revealing limitations that were taken into account for phase two. The first phase interviews entailed the most motivated and confident students sending back results, which were often limited to the questions posed. This informed the second phase, so that less confident, less engaged students were encouraged to participate in small in-depth semi-structured

interviews in order to engage their voice. However, this means of data collection, while aiming to represent all types of profiles of students as far as possible, is limited by the ability of students to recall, articulate and to critically discuss the use of the social network for learning. The last of these was particularly felt as the researcher is also the classroom teacher and there is a sense of students wanting to give the 'right' answers to questions. An aim to circumvent this was made by conducting the interviews after the course had finished in the narrow time available and outside of normal college circumstances (i.e. in a coffee shop in the college foyer or in a classroom space the students were more familiar with than the teacher). Finally, as indicated above, my position as both researcher and teacher may bring about issues of objectivity and bias. These issues are addressed in the methods chapter, but it is felt that rather than compromise the study, the opportunity to know the students attitudes, behaviours and experiences is complemented by a teacher a researcher. In all cases, attempts are made in the analysis to show any assumptions on behalf of the researcher that may elucidate bias or inside knowledge with memos and vignettes.

1.6.3 Assumptions

Assumptions are explored throughout this study: there is an assumption from the outset that students wish to improve and succeed on the course, though parameters for this are made clear in the research problem where the variables of engagement and disengagement are upmost. Opportunities for success are communicated to the students as being partly enabled by participation in the social network; assumptions are made regarding their access to technology, described above. Another assumption is in the affordances identified from Web 2.0 technologies and whether these are perceived or shared values by the students, as well as if, then how, they are exploited through the network. These affordances are ratified in the literature review and interrogated as values during the content analysis and interview stages. Wider assumptions surround the values and perceptions of education. The perspectives of the researcher as a language teacher and researcher will differ from those of the student participants, and the position of the researcher as someone with a middle-class background and as a specialist in English creates many assumptions with the research population. This is explained further in 5.7.

The thesis continues by defining key terms used throughout the study, which begins with the literature review, before discussion of a significant report cited throughout.

1.7 Glossary of key terms and significance for discussion

These definitions are included here as key terms used throughout the report and significant to the research project and its aims. Where there is some discussion of the meaning of the terms, it may fall into relevant later sections. This section is used to make a clear definition from the writer's perspective.

Syllabus

All references to syllabus, unless stated in reference to other courses, here are used to indicate the syllabus of the research problem and study in hand: English Language GCSE.

Agency

Agency is the personal propensity for individual actors (in this study, people such as students and teaching staff) to act upon the world, whether consciously or unconsciously it is taken in this study to be premeditated by individual choice.

Affordance

A straightforward literal definition explains that an affordance is used here to refer to any opportunity or advantage gained. The context is educational technology; therefore a technological affordance is seen as something provided solely by technology and unavailable from elsewhere, but the key is in what human's do with the technology. McLoughlin and Lee (2007) describe affordances not as preconditioned by functionality, but in terms of application, using the example of blogging, which enables literacy development (function), but the affordance of which is an increased communication, e.g. potential for wide readership, interaction, and collaboration. It can be seen that affordances from one technology may be multiple. Talking to a large group from a remote destination by e-mail is an affordance (the e-mail is not). Careful interpretation is needed and may stem to several aspects from the same technological

root, as another affordance of the same medium might be an opportunity to share an idea that occurs remotely.

Social media

'Social media' is often used to describe a variety of online communication platforms used to interact with others in networks by way of posting updates on personal status, communicating online, commenting on posts, photographs, videos, links and artwork. Alongside recreational and social purposes social media can refer to connected hubs – individuals connected with, various agencies whether Governmental, clubs and fan sites, cultural agencies, corporate communities, real life social networks of friends and strangers. Within these hubs, individual, user-generated content tends to become less secure and more open, as information is shared and distributed in proliferated web networks.

What is important to emphasize, for the overall educational context here, is the active constructs in social values (sharing, commenting, participation) and user generated content through networked members of social media commonly made public.

Mobile

Mobility has become a term increasingly used when discussing Web 2.0 learning opportunities. Here mobile learning is used in a straightforward sense as defined by Sharples, (2009),

1. A focus upon mobile devices
2. A focus upon learning outside the classroom
3. A focus upon the mobility of the learner

Relevant here is the second definition, framed as assumption to improved learner independence, taken itself as a means of improving learner engagement to curriculum objectives and academic identity. For this study, less importance is placed on the mobile device as used for access (to resources, to other students), though it's understood that a lack of equipment can inhibit independence, but for this case study access need not be from a proximal distance. In other words, if a student accesses syllabus materials from a computer on the college campus outside of face-to-face classroom sessions, this is considered mobile in the terms of this study.

Disruption

Disruption is another term with varying meaning, usually of negative etymology. In this study, disruption is usually taken to mean the effect technology has on previously traditional means of delivery, to conventional relationships, self-identity and even social hierarchy (Buckingham, 2008). This appears elusive; elaboration is made where used in this study for its specific purpose.

Heutagogy

An approach that posits learning as becoming more self-determined and developing capabilities and competencies, particularly for individuals knowing *how* to learn.

Autonomy

For autonomy, the definition is meant as actions taken that are independent of a normal context, usually taken as a classroom situation. An assumption is made that this is taken as a positive value in improving student engagement, where the terms usually apply, as will be discussed in section 3.5.3 (Heutagogy): a study of self-determined, capability development, framed upon autonomy.

Engagement

Engagement is used as a description of students' attitudes towards learning, and is taken as meaningful dedication, motivation, to achieving an outcome from the syllabus or related activities. Equally, disengaged has negative connotations of students who are disinterested, not attending or not participating.

Social Network

A full description of the Edmodo platform, which supports the methodology deployed in this study, is made later as it forms an integral context for students' activities to support learning and autonomy. It is often described by the writer as a social network, or online 'space'. It functions as a network in ways described in the above section on social media, with the exception that it is closed to the public for safeguarding reasons, so should not be understood in quite the same way as commercial sites like Facebook.com.

Characteristics that make it attractive to the purpose of this study incorporate:

- Multiple/multimodal literacies (emoticon responses, video links, etc)

- Quizzes and polls
- Integration to other Web 2.0 applications
- Resource sharing
- Messaging service
- An open wall with commenting functions
- Assignment posts
- Push notifications to students of activity
- Mobile application based version
- Organising small or large learning groups

Virtual Learning Environment

For this report, social networks are seen as any platform that allows for the congregation of online members interacting around multimodal literacies. A Virtual Learning Environment (VLE, e.g. Moodle (<https://moodle.org>), or Blackboard (www.blackboard.com)), share similar functions and characteristics, but are inherently platforms utilised by an institution for internal purposes, including the analysis of learner activity and attendance and for report generating. Further use is made by embedded e-mail services, making it highly characterised by staffing uses over student ones, despite being utilised for cross-institutional use. As such, VLEs are regularly embedded as compulsory mandates for use by students. For reasons of user-protection, and as contextually academic, these can be counted as *social media*, inhibited as they are in terms of functions, and their use remains less a ‘social’ context than an academic and prescriptive one.

Lifeworld

With two separate meanings deriving initially from German philosopher Edmund Husserl and later from Jurgen Habermas, lifeworld for Husserl was phenomenological: the mediation of subjective inner-world consciousness and lived experiences in the outer-world; as a sociologist, Habermas defines it as how people – as separate entities – having separate experiences share and communicate these meanings in light of *lifeworld* as a background of competences, practices and attitudes that informs our perceptions. The relevance here is as methodological, aimed at capturing perceptions of individuals’ experiences of online study.

Habitus

From the French social scientist Pierre Bourdieu, who defines habitus as the nature, character and temperament of any individual as influenced by socio-economic status, family, religion, education and ethnicity and comprised of attitudes, actions, beliefs and habits. This is closely aligned with lifeworld above, though where that is perceptions of life and the world around subjects as reality, habitus has significance as the mechanisms that constitute and influence experience.

1.8 FELTAG and digital evolution

Overall, the unstable climate described in section 1.3 presents challenges for the FE sector in terms of how it operates on depleted means, remains innovative in provision and, moreover, its continued significance in light of increased competition for student numbers. These challenges are interpreted as an opportunity for a major shift in FE cultural practice by members of the FELTAG coalition, expressed as a need “to enable the system to become continually adaptive to an environment that creates new challenges for learners and teachers.” (2014: 7).

FELTAG was written simultaneous to the course of this research study and has become increasingly influential as a map of future provision for the FE sector.

Significant FELTAG recommendations were:

- “Regulation and funding must not inhibit innovation and its effectiveness in improving learners’ outcomes” (2014: 4)
- “Relationships between the FE community and employers should become closer and richer, and enhanced by learning technology inside and outside the workplace” (2014: 5)
- “Learners must be empowered to fully exploit their own understanding of, and familiarity with, digital technology for their own learning” (Ibid)
- “The entire workforce has to be brought up to speed to fully understand the potential of learning technology.” (Ibid)

These recommendations are interesting given an original literature review drafted for this thesis, which sought to explore the first point and final two points. Some of this literature review was retained for this thesis, explored in teacher's presence (3.3) and learner resistance (2.9). Throughout the study, a consideration of 'innovation' was in the writer's mind. Yet the innovative potential for online learning networks has become an expectation of a workforce up-scaling towards online learning presence. The recommendations need scrutiny in operation, given that much of it rests on student application to new forms of learning and inherent to the ideas are issues of commercial presence within those learning experiences.

The Government consolidated the relation between work-placed skills and digital technologies by appointing the Education and Training Foundation (ETF) with setting out a 2014 agenda for FE providers and universities aimed to improve knowledge and confidence of using learning technology (Coralesce, 2014). Funding has been apportioned to national action research projects, along the lines of Citizen Maths, a free online maths MOOC (Massive Open Online Course) course. Implications of the projected success of such a project may see transferability to other contexts and courses from educational leaders trying to operate with restricted budgets, yet 'success' must include some reflective focus on key terms in the FELTAG recommendations: for example, how *enhanced relationships* are defined and how outcomes of the Coralesce (2014) PROJECT compare '*potential of learning technology*' against conventional provision, and what assumptions are made about the *familiarity* of learners with technology. Other projects funded include the Children's Food Trust Learning Network, which operates on a paid membership scheme, seemingly at odds with state free education and arguably reflective less of enhancing skills for 21st century learners or engaging employers and more of reducing capital spend.

Among extracts from the FELTAG report were calls for 10% of courses to be delivered online, rising to 50% by 2017/18. The Skills Funding Agency (SFA) guidelines define online as "time when learners learn online, interact with other learners online or use online content, systems, tools and services with little, if any, direct tutor support" (SFA, 2014). This resulted in alarm by some providers and teaching bodies, interpreting it as prescriptive. In its Government response to FELTAG, the SFA clarified that where

learners' need more support this may be taken into account and that recommendations are made to support learners to learn and assess themselves at their own pace. Providers are encouraged to strategise such approaches, showing a clear intent for online provision and diminished tutorial support.

Financial restraints on the FE sector are potentially offset against staffing costs or physical accommodation with learning technology coming to represent virtual provision, as in the Citizen Maths MOOC project, regardless of how effective this is in terms of provision. This may also come about regardless of the knowledge teachers themselves have of students' learning needs, abilities and awareness of what constitutes effective learning (quite apart from students access to technologies or knowledge of how to use them for their own learning); while the Coralesce (2014) projects involve many stakeholders in cascading information, the teacher's voice is discrete and unclear. Objective critique is needed where policy and projects funded by Government seek to transform community cultures of learning, such as colleges; central stakeholders must include teachers and students alike. The Coralesce (2014) report itself references some difficulties with research it may fund, stating "some respondents who have received money from project funding over report success. Much of the evaluation is coloured by this need to affirm the value of what they have done and the wisdom of the allocation" (Newman, 2013, cited in Coralesce, 2014). Selwyn's (2009) caution against claims of technology enhanced learning sees a need to "set about developing *critical* accounts of the complex and often compromised realities of learners' *actual* uses of social web tools. In particular, more attention needs to be paid to the structures, boundaries and limitations of social web." (2009: 3). This point is raised to suggest that there are risks in a precipitate move towards digital provision and that it may not be the place of a Government intent on decreasing public spending to decide on the efficiency with which digital technologies shape change. It is necessary to ensure teaching staff have the necessary skills needed to integrate new pedagogical activities, but unwise to manoeuvre the sector into mobile learning for which it is unready. The FELTAG report indicates that FE has potential as fertile territory for practice, mediated through digital technology frameworks, and can help assert its real-world value as a sector. Responding to findings from employers, the Welsh Government (Learning Wales, 2015) is to introduce a framework for digital literacy skills to be embedded into the curriculum from 14 onwards, arguably a surer

way of preparing student readiness for post-16 digital learning than leading a sector into reformed provision post-haste.

Such affirmative action with emergent technology operationalised by the Welsh Government negates the risk of sudden movement into diminished face-to-face support for students whose academic experiences, as shown in the Research Problem (1.2) section, may result in disengagement. It also prevents consequences to the assumption that student readiness for such practice is innate, simply due to assumptions based on the ubiquity ('familiarity') with which technology is recreationally used by enculturating so-called '21st century skills' earlier into the school lives of students. Whatever the consequences of whether "the enthusiasm of reality match the enthusiasm of the rhetoric" (Selwyn, 2002: 91) it would appear that the conversations around technology as panacea for wider educational problems have been segregated; implementation has begun at a policy level and FE is prime terrain for innovation. The next section calls for research in FE and explores related issues.

1.8.1 Need for FE-based research in practice

As shown from the previous section, innovative provision with technology is emergent. Simultaneously objective research is required to inform innovation, especially for educational practitioners own professional development, but also in terms of the industry sector at large. Ellis *et al* (2014) have remarked that the FE sector is not a sector where formal academic research is traditionally based as a priority. This has implications in terms of the sector enabling definition of its practice, which borrow from schools and universities, but does not see practitioners in the sector able to shape its identity and direction, something which FELTAG seeks to guide.

Despite a huge workforce, FE is often perceived as suffering from a lack of professional recognition. Historically, this has been due to some extent by fragmented union representative organisations, a unified professional body, and perhaps to its vocational nature with many staff unqualified as teachers, but having professional working backgrounds. In recent years, professional qualifications are more expected than they were in the past. Recent workforce up-skilling includes Education Training Foundation's (ETF) professional standards and CPD for tertiary level practitioners that highlight expectations for technology use to support learners (ETF, 2014). FELTAG

proposes that to improve the sector's reputation and create an educational environment that prepares for employment, robust pedagogical paradigms must underscore learning technologies practice. Many emergent paradigms proposed as supportive of learning technologies, may have a closer fit with FE than schools, being closer in age and demographic to Higher Education, and to real-world scenarios associated with vocational provision. Since provision can also be flexible in fitting with its apprentice and adult learner base, agile innovation in FE makes for emergent learner experiences, which need both critical reflection and grounding by research. A case is made for transferability of findings from this research to support knowledge of teacher's uses of assistive technologies based on a grounded understanding of learners needs.

Research in FE is limited, often adapted by agencies, such as Coralesce, (2014), rather than driven by educating staff on the ground. The remit of many research studies have been small-scale, quantitative and supportive of digital technology integration, as highlighting best case examples or in action research, which may forego critically realistic uses of technology for national institutional uptake. Ellis *et al* (2014) state that rather than using technology in learning experiences that reflect the changing personal, social and economic worlds "default practice remains that of replicating or supplementing traditional activities." (2014: 2). It is a point shared by Cochrane and Antonczak (2014) on mobile learning often used to "retrofit" (2014: 1) existing practice, strategies and activities to emergent technologies, and a view reiterated in Blin and Munro's (2008) study of resistance to changes in teaching practice by academics, despite the availability of technology. These points are stressed here to show the need of such critical view of the reality of technology enhanced learning, but also a need for design-based research (Brown, 1992, Collins, 1992) to be supported with theoretical paradigms for authentic learning contexts from virtual environments that make clear criteria of 'success' in designs that promote inclusivity (Dede *et al*, 2004). It is with this in mind, that this study reports holistically on all students interactions to gauge levels of engagement, rather than on best case examples.

1.9 Chapter Summary

This chapter explains the background and rationale for the study positioning the Interpretive approach taken towards a Case Study. The FE sector and research problem were outlined in order to contextualise the study, research design and research questions regarding re-sitting English Level 2 students uses of social networks and how these may impact on engagement.

It highlights the influence of the FELTAG (2014) report in attempting to initiate a paradigm-change in terms of working practice in Further Education, the rationalisation for this as significant in terms of emergent digital opportunities such as autonomy and identified barriers to change. Of significance in the report was the proposal for learning presence to be given greater definition in terms of online activity. In this writer's mind, this leads to a need for critical research in the sector at this juncture, outlined in the following sections.

Chapter 2 Literature Review: Learning Technologies, Institutions and Individuals

2.0 Organisation of this chapter

A literature review is presented that draws on some of the key considerations from FELTAG, concerning the readiness of institutions and staff and student expectations and apprehensions surrounding the implementation of learning technologies. This leads to theoretical frameworks relevant to the Research Design chapter. The literature review surveys previous research to identify knowledge gaps and refine research questions of the study. Across the lifespan of this study, the research questions remained flexible, but focused on 'mobility' as autonomy. As the study progressed, the articulation of the research problem became nationally acute and focus shifted to the potential of learning technologies as affording engagement properties in terms of agency as a dependent variable of Web 2.0 technologies.

This review was undertaken by a mapping activity of research, categorising clusters of themes (i.e. 'affordances') relevant to preliminary sections and conducted largely via online search engines such as Google Scholar, with further research drawn from locating significant texts from bibliographical references in cited reports.

2.1 A brief overview of today's education with ICT

O'Reilly's definition of Web 2.0 (2005) marks a plethora of new affordances in open source software, purportedly moving web use away from a passive user platform to a more active one. Across the lifespan of this study, and with dynamic and continual change in form, this is open to scrutiny.

Educational commentators (cited throughout this review) anticipate prolific upgrades in skill sets, access to resources, content creation, and ways to communicate. Not only have emergent technologies raised expectations, but see the emergence of new pedagogical models, such as SAMR (*Substitution, Augmentation, Modification, and Redefinition*) (Puentedura, 2006) as blueprint for technology-based transformation of educational institutions that has influenced the pedagogical vision of schools seeking

structural implementations to technological support. The ubiquity of mobile devices increase opportunity for social media as a pedagogical tool plotted to such frameworks.

Commentators write on the capacity of the social web to act as transformative to pedagogical provision (Cochrane, 2014) based on high-levels of social interaction. Turvey and Pachler (2015) state that too often views of technologies reduce the “agency of actors as they mediate the use of learning technologies” (2015: 1) and unhelpfully position technologies as solutions to deeper problems, highlighting how learning technologies add layers of complexity to contexts, including political ambiguities, such as constraining technology’s applications to measuring educational achievement. It’s revealing that so much circumspection surrounds new technological practice in education, as this disparity between expectation and reality reveals both the temperament of ungrounded research and assumptions surrounding the pace of pedagogical transformation, as well as the actual institutional contexts into which these Web 2.0 features would be introduced. Research that is criticality borne of empirical research is needed to explore expectations of what technology realistically affords education, particularly in the shape of endorsements made to policy as with FELTAG, described earlier.

The impetus for reforms to traditional learning content, outcomes and provision has seized the imagination; particularly in the blurring of formal and informal boundaries of learning (Sefton-Green, 2004, Pachler *et al*, 2010), channelled through new literacy practices. This draws in questions about the shape and content of contexts of technological environment for learning. This is particularly necessary when drawing on the evidence for variance in Hattie’s meta-analyses of achievement where, for instance, home life, has a low variance of between 5-10 % compared to teachers, who are accounted with 30% (Hattie, 2003) of achievement. Doubts may then be cast on the plausibility of learning autonomy for students where there may be diminished teaching presence augmented by learning technologies, as framed in the earlier discussed Skills Funding Agency report (2014).

Technological innovation is a contested and complex issue, though not restrictive in terms of the aspirations of multiple agencies and stakeholders in education. Where innovation would be disseminated into the workplace, as FELTAG seeks to instigates, the ownership, experience and aptitude of educators need to be explored, in order to

understand that as a challenge outlined in FELTAG. Professional development needs to observe the findings of research which proposes change, but a fit between these worlds, as praxis, may have tensions. These issues are explored in the institutional tensions chapter (3.4) and the teacher presence chapter (5.3). Furthermore, handling of the new opportunities must be carefully introduced, with regards to how students use such tools and what expectations are made of them, before dramatic evolution of teaching and learning at institutional levels takes shape.

The next section moves to a consideration of reasons institutions resist adapting technologies to support learning, as barriers to change highlighted in the FELTAG report.

2.2 Tensions associated with the educational institution integrating social networks

Clark *et al* describe the '*digital dissonance*' (2009: 56) that exists as a demarcation between formal and informal learning spaces for young people today, yet simultaneously there is growing belief that "...the blurring of boundaries between home and school knowledge" (Grant, 2010: 15) can be counterpointed around social media, despite a lack of clear configuration between these worlds (*Ibid*). It's common to read of the opportunities for exploitation of distance or online social websites, but accompanying this fanfare are indications that expectation has not been advantaged (Selwyn, 2009). In this section, an examination of institutional tensions with Web 2.0 strategies is identified, in order that awareness of preventative issues is anticipated as leading to the research design.

Aligned to FELTAG report findings, Morris (2010) and McLoughlin (2011) find lack of social media integration is due to poor staff skills and competency and institutional apprehension, or a fear of disruptive potential (Clark *et al*, 2009). 'Disruption' is taken to mean student behaviour shown by Grant (2010: 15), who suggests that teachers have dissuaded student chat on a school VLE, or in using mobile phones in classes, while Selwyn found staff viewed a "culture of disrespect" (2009: 12) engineered by Web 2.0 artefacts between young learners. While overcoming time and physical access limitations represented by classrooms is beneficial to students, online spaces require moderating content by teachers, necessitating a continually connected presence adding to teachers' workload.

Other assertions of a “digital disconnect” (Morris, 2010, Levin and Arafeh, 2002) highlighting teachers’ resistance to social media opportunities based around professional development and the design quality of meaningful assignments. Staff resistance, is conveyed as teachers’ beliefs (Ertmer and Ottenbreit-Leftwich, 2010) as obstructive, positioning them as technophobic, unskilled, or not utilising technology for student-support. The authors state that rather than ‘supplementary’, technology should be regarded as (2010: 256) “...essential to successful performance outcomes.” Such technologically determinist perceptions have unhelpfully framed debates as rescuing failing archaic educational systems (Turvey and Pachler, 2015) or as substitution to ‘authentic’ values in education (Buckingham, 2008). Assertions that technology is essential may be viewed by institutions and particularly staff with caution, resulting in flawed use, e.g. issuing tablets to staff with little guidance. A dearth of evidence showing correlations between technology and successful performance also impacts on institutional leadership, where focus may be based on qualification results, over developing supporting pedagogical structures.

The British Educational Communications and Technology Agency (BECTA) produced *‘Harnessing Technology Review’* (Davies and Pittard, 2009) points to a decline in technology use in transitions between primary and secondary schooling. This suggests that learning provision and access experiences for incoming FE students is less grounded in practice and digital literacy skills than ambitions for the sector’s reform are founded upon. Though the report reports relative maturity (2009:8) in the use of learning platforms in FE, a lack of fluid continuity in online provision for students transitioning between sectors is identified elsewhere by Leese (2010) as a problem area. Such issues inhibit procurement of navigable digital skill sets necessary to online models of learning, though BECTA praises FE and claims positive association between ‘e-mature’ colleges and OFSTED outcomes, particularly with institutional uses to manage colleges, induction activities, monitor and improve attendance and student progress – findings highly relevant to this research problem but resident of institutional, rather than individual student uses.

A common suggestion is of staff as ‘digital migrant’ (Morris, 2010), where skills can be reconfigured in training to allow for ‘teachers as learners and pupils as teachers’, although many novice teachers don’t share this view (Crook, 2012; Highley, 2013) or find value in using social media. Yet increasingly affinity with ‘learning technologies’

are perceived as a prerequisite to good teaching knowledge, with proliferate advocacy feeding a climate of cited affordances and tools as a mainstay of curriculum delivery. With institutions facing questions regarding the relevance of 'education' from learners (Pachler *et al*, 2010), and multiple areas of online educational provision arising, critical discourse of effective use needs to be taken into account by colleges, with clarity agreed on what 'effective' looks like to all participating agents.

Pachler *et al* (2010) outline social media integration to formal provision as covert, describing the 'appropriation' of mobile phones on behalf of staff in lesson-planning in recognition of the culturally meaningful impact such artefacts can have in hosting conversations that bridge cultural practice and school contexts. 'Appropriation' indicates discrete, even clandestine, use, reflecting a lack of in-house training assimilation. Websites such as *polleverywhere.com*, which allows learners to respond to questions or surveys posted to a SmartBoard, depends on use of an SMS text by phone, but contradicts colleges whose policies still prohibit classroom access to handheld devices. Teachers utilising such methods may contravene institutional rules, compromising the authority of the institution and other staff, who uphold bans.

Familiarity by teachers with students' use of social media could help overcome demarcation issues (Grant, 2010), shown where there is dispute over the extent with which students are active stakeholders in their own education, with Qvortrup suggesting (in Livingstone, 1999) that students' opinions have been neglected when it comes to curriculum design. Livingstone reminds us (1999: 26) that educational researchers have a need to "balance the views of children and parents", alongside policy makers, theorists, software and designers. This may diminish the institution's role in knowing best, particularly where dispute has arisen regarding student-centred learning with technologies (Kirschner and van Merriënboer, 2013).

FELTAG argues that vocational training has failed to stay in touch with a changing world of employment. Making core subjects such as English or Mathematics relevant in FE is challenging. Using digital technology to adapt provision as less modelled on school delivery and promoting employable self-regulatory skills is a potential route. Increasingly, agencies such as the SFA (2014) propose self-determination and innovation in practice. Questions surround how innovation is managed in a competitive sector judged on results, or how teachers – as central stakeholders - can influence the

process, while JISC, to name just one external agency, has taken on promoting (and thereby defining) best practice under the FELTAG banner.

Challenges surround the design of curriculum at post-compulsory level to improve meta-cognitive skills and which are responsive to individual learner needs and vocational goals. Questions also surround whether assumptions of digital literacy support or conflate those objectives. Curriculum reform and provision at Further Education college level has potential for flexibility in provision, content and timing” (Spielhofer *et al* 2009). This is in keeping with growing influence on the sector set by FELTAG’s recommendations, which encourage the shaping of future work skills and lifelong-learning. However, until pedagogical design strategies that can support re-sitting learners is proposed, the school qualification, shaped much like school practice with a focus on classrooms and transmission models of content knowledge, is default.

2.2.1 Summary

Ultimately, issues may be prevalent with staff, who recognise the needs of their learners, but may themselves: (i) be unskilled in handling social media (ii) not recognise any value to such systems to develop educational attainment (iii) be restricted by institutional direction. However, contemporary research tends to show that Web 2.0 affordances are not just hypothetical or conceptual skill sets or opportunities for collaboration, but can be pragmatic in a number of ways, including the integration of familiar software, and interventions for failing students. The next section summarises how the educational landscape is driven by a technological determinism with guiding pedagogies.

2.3 Learning Technologies as channels for pedagogical change

Some implications of learning technologies at an institutional level have been discussed. A lack of readiness, knowledge and confidence for institutions and with others potentially lacking conviction of positive effects for practice, inhibits change.

Barnes *et al* (2007) show, students now anticipate technologies being used and Greenhow *et al* argue (2009: 251) “...that students come to their classrooms and campuses expecting to exert their online identities and leverage their online social networks to collaborate as part of the learning process.” Lenhart *et al* (2007) suggest student preferences for multimodal forms of communication. This would appear to lean

back into student preference, refuted as a single stakeholder in the previous section. Despite this rejection, students' claims that social media strengthens social bonds, improves communication, channels feelings of anonymity that lead to unguarded and self-focused sharing, and promotes a presentation of the self (Greenhow *et al*, 2009) cannot easily be overlooked.

Garrison has observed that, "...educators have begun to understand that technology is not just a neutral delivery vehicle..." (2011: 66) a claim reflecting characteristics hitherto unavailable in technologies, such as participatory and personalised web 2.0 affordances shifting from read-only to possibilities to content creation (O'Reilly, 2005), enabling individuals to act on 'agency' (in sociological terms, a term meaning an ability to act upon the world), rather than as latent receptors of instruction, communication and, indeed, delivery.

Despite tensions previously highlighted, the infusion of technology with educational provision becomes less separable. The subject of whether learning can be shown as happening in conjunction with technology is a grey area, and one that depends on what paradigm of learning is taken and what and how researchers aim to measure. In the competitive culture of today, usually this is taken as showing statistical improvements in results, though it is difficult to isolate technology as a determining factor in performance (Kay *et al*, 2006). The overriding issue with the demographic in this study is of engagement, with technology potentially removing temporal barriers and providing a level of extra assistance. Without proper frameworks for pedagogical integration and actors agency (Turvey and Pachler, 2015), the view that introduction of technology alone will result in improved performance is determinist, so the thesis continues by exploring theories related to community as supportive of praxis.

2.3.1 Summary

Technology – both online forms and mobile devices - increasingly take a significant role within education, and has come to be used in ever widened ways for provision or to communicate via Web 2.0 multimodal literacy opportunities, i.e. film-making, image sharing, commenting, sharing links. Increasingly research has looked towards both results of using technology in terms of overall attainment and at a more micro level, i.e. values of engagement and attitude towards learning. This macro and micro level of looking at what happens between students and with the technology helped inform this study. In light of calls from Selwyn (2009) and Buckingham (2008), it is crucial is to

take a balanced critical voice in research that does not inflate expectations or amplify negative connotations of utilising learning technologies. The next section outlines the importance of the community elements of using learning technologies in supporting models of social learning.

2.4 Social Learning models

The idea of Situated Learning takes the notion that context of activity is paramount and may influence individual actions (agency) to occur, which arise through Communities of Practice (CoP): a group working together at common objectives through regular interaction. Within a Community of Practice, members exist, and whether the community is a learning one (in the conventional sense of a classroom group) or a community with a shared interest, members will practise “ways of doing things, ways of talking, beliefs, values, power relations – in short, practices – emerge in the course of this mutual endeavour.” (Lave and Wenger, 1991: 464)

2.4.1 The Community of Practice and situated learning

In this study, the common interest is the English curriculum with activity situated in Edmodo, a network extension of the classroom as a site (context) of learning. The demographic of English GCSE re-sit students may be considered problematic to such a study, as recalcitrant to the engagement levels that membership implies, which is a willing subscription. Extended to web 2.0 affordances, creative expressions in multimodal forms, connectivity, and co-operative networks of members communicating from anywhere at any time – the CoP model provides interpretative value. The concept can be reconciled with Gee’s (2004) notion of an affinity space, where informal learning congregates to (offline or online) spaces. If social rapport can be established through meaningful activity – and an attitude of ownership of the space is fostered to the group, the identity of the community may be strengthened to its individual responsible purposes, or, as Holmes and Meyerhoff have it: “We learn to perform appropriately in a CoP as befits our membership status: initially as a “peripheral member,” later perhaps as a “core member” (1999: 174).

Clearly, ‘community’ is predicated on levels of participation. ‘Learner dissonance’ to social networks is discussed in 2.6, but the subject of participation illuminates a paradox of whether affinity spaces (social networks, VLEs) used for education are

based around *willing* communities or obligatory memberships? *Membership* implies the mandatory, so educators' expectations of engaged communities may be unrealistic, as Clark (nd) has argued: media does not directly influence motivational behaviours. Gee (2001) says that membership implies belonging, suggesting harmony within groups, adding that this suggests misleading perceptions of common goals, which is why he recommends notions of 'affinity spaces' over 'Communities of Practice' to avoid resultant tensions and unrealistic expectations. 'Affinity spaces' indicate a shared space with common and diffused interests, varied goals and objectives. Something of the two is parallel to this study, with central goals, but 'community' cannot be taken for granted.

Social presence is an integral domain in Garrison's (2011) Community of Inquiry framework (discussed next), which suggests a predication on 'belonging' as enabling group cohesion and situating open communication. Teachers must expect a degree of conflict as an inevitable part of a group development (*Ibid*) but social presence, Garrison continues, includes the tensions and nuances that lead to the establishing of group dynamics, and gradually give way to (2011: 89) "...purposeful critical community of inquiry." Difficulty may be anticipated here in encouraging the participation of reluctant, unconfident and unmotivated FE students, whose disengagement may be due to a lack of belonging (Duckworth and Ade-Ojo (2016), Murray and Mitchell, 2014).

Lave and Wenger (1991) have suggested that community membership enables a natural social method of learning, whereas in a classroom activity can become abstracted to assimilating material from a teacher. Wenger identifies three elements of community: mutual engagement; a joint enterprise and a shared repertoire of resources, which are not distinct from classroom contexts but can inform how a social network for learning may be harnessed. Considering members more as a community than as individual students raises two questions of engagement:

- Can membership invigorate existing latent behaviours?
- Can active individual agency in a participatory network positively influence activity between members?

Wenger’s 2009 reflective discussions on CoP characterise the community as hosting joint activities by members helping one another and sharing information, and building relationships and learning from each other. Further emphasis is placed on practice, as members build a repertoire of resources comprising their own experiences, including ways to solve problems, and tools that can be appropriated for community purposes (Wenger, 2009: 57) That this theory has currency in business learning models, gives this a promising potential for FE learning groups, with an onus on real-world models, collaboration and professional contexts. The next section explains core aspects for e-learning shown as the Community of Inquiry model.

2.4.2 The Community of Inquiry

Garrison, Anderson and Archer (2000) claim that for e-learning to transform provision there is a need for ecological design with appropriate social presence levels for students, from which cognitive presence can be enhanced in elements that come together for the successful construction of online learning: a Community of Inquiry comprising Teaching Presence; Social Presence and Cognitive Presence, shown in the figure below.



Figure 1 Community of Inquiry model (Garrison, Anderson, and Archer, 2000)

As can be seen above, community-determined engagement relies on teacher presence to facilitate educational experiences. The teacher's leveraging the social and cognitive presence potentially creates a paradox: where a teacher is ubiquitous, self-determined behaviours may be compromised, raising the question of how teacher's presence is best used to instigate the weight of agency towards the community?

Key to the Col model is the cognitive aspect. In this study, the basis of studying members' congregation to a social network stems from – and is supported by – face-to-face teaching/learning experiences in the classroom. Specific skill-sets associated with cognitive outcomes are difficult variables to isolate as arising from either online or classroom contexts, since affordances enhanced by communication are not necessarily arrived at by technology, but are the agency of the learner, who as presented in this study may have obstacles to participation, such as literacy difficulties or tensions with formal academic contexts. Moving activity from conventional classrooms to online ecologies may not impact on the key learner attribute of motivation. Moreover, constructing social presence in such contexts is not straightforward where learners view networks as institutionally driven.

In the Col model, human agency – the teacher and learner – are foreground to technology as background. In effect, a position is taken here that social media is a variety of tools to enhance teaching and learning strategies. While acknowledging that these tools hold attractions because of their familiarity with everyday practices used by students recreationally, this is not to propose that these define best practice. Rather, they represent opportunities for enhancement, less predicated on knowledge transfer, more on supporting engagement, through a blend of methods between online forms and face-to-face strategies (discussed later). While warning that hype can lead to disenchantment (2011: 69), Garrison proposes that social media can enrich community, resulting in student persistence in their academic identity and aims, though these “...do not lend themselves to sustained educational discourse and reflection ...in an educational community of inquiry.” (2011: 71) It is posited that a Col gives learners opportunities to project themselves socially and emotionally. If too much focus is on social elements, cognitive (academic) purpose can be compromised. With motivations in this study population expected to be low, cognitive and pedagogical activities are structured through face-to-face contact and the network used for reinforcement and reflection, such as explanations of complex ideas through chunked

posts, video links, by stretching and challenging using discussion threads, and to promote engagement with push notifications as organisational support. It's envisaged that this inculcates student residency to a network, propagating independent agency actions that enable community of inquiry.

2.4.3 Summary

Overall, what needs to be focused on from these two sections is the importance of the teacher, and student interrelations that make a network thrive for academic purpose. Questions arise about the responsibilities of the teacher in creating a social presence and how this is balanced to cognitive purpose, with some recommendations concluding the section. The next section turns to affordances of online practice already regarded in the literature and seeks to position these as supportive of the syllabus in the context of this research.

2.5 Affordances: Opportunities associated with the integration of social media into education

In this section, affordances related specifically to relevant social media platforms are discussed in terms of expanded educational opportunities for learners and teachers. These have been checked against certain models to show emergent pedagogical practice and theory as developing concurrently with technology. A range of key social media features highlight how academic institutions can exploit opportunities to enable learners to participate actively with these tools. Wenger's (1998) principles of 'Communities of Practice' becomes more plausible as a framework with social media technology, particularly when coupled with the notion of situated learning spaces (Gee, 2004) which give rise in modern pedagogical thinking to the commonly held opportunity for the "...creation of communities and resources in which individuals come together to learn, collaborate and build knowledge." (Owen *et al*, 2006: 3). As seen from the previous sections on community, which is taken as an overriding affordance in terms of this study on networks, online learning environments imbue affordances as enriching learning experiences and contributing to social knowledge shared among groups.

New pedagogical models emerge that correspond with new technologies, yet may not make for a realistic fit in practice. For instance, access to devices and associated situated contexts for resources and activity allows for an increased potential for 'flipped learning' (Strayer, 2007), a pedagogical approach incorporating technological spaces to deliver curriculum content. With this approach, bulk syllabus material is accessed away from the classroom in order for classroom time to become more dynamic, particularly as moving away from lecture-based content delivery and direct instruction and towards creative activity. Access to course content outside normal boundaries negotiates 'anywhere any time' learning (Kearney *et al*, 2010) transcending spatial and temporal restrictions and the static domain of the classroom. This enhanced freedom to remotely access resources and peers represents a difficulty for Somekh (2008: 452), who suggests that it "...consistently destabilizes the established routines of classroom life, including norms of time and space." Interpreting this challenge as an opportunity may see it as a disruption that can stimulate reflection to a syllabus. This may have currency for learners, who may be resistant to the concentrated temporal and physical context of the classrooms, but who have also taken the syllabus before and may require alternative modes of delivery (Smith and Wright, 2015). Moreover, flipping, or 'just-in-time' approaches, may support those who cannot easily fit with timetables due to other commitments, (e.g. full-time parents or employed students). An argument is that in flipped approaches, the syllabus – the threshold of understanding that can support application – risks leaving struggling students to their own devices, so teaching presence must be visible and connected. While flipping may benefit inclusion to more proficient students' and enable practical activities at a face-to-face level, it may be exclusionary to low-engaged, peripheral students, as highly contingent on motivation and access.

McLoughlin and Lee (2007: 667) classify affordances in terms of:

- Connectivity and social rapport
- Collaborative information discovery and sharing
- Content creation, and
- Knowledge and information aggregation and content modification.

Crook *et al*'s 2008 research into Web 2.0 in UK schools isolates collaboration as a central theme, alongside inquiry (discovery) and publication (sharing), to which is added 'literacies', as multimodal communications.

- Collaboration
- Potential for inquiry
- Publication
- Web 2.0 literacies

Potential for inquiry by search engine or through community peers has resonance with ambitions to raise self-determination, if inquiry is situated as normal activity by students, but inquiry can also be framed as an affordance for teachers posting questions. Collaboration is characteristic of a Community of Practice, potentially drawn from collaborative work habitualised *in situ* in classrooms, with the aim that similar behaviours are characterised online. Publication, in terms of self-expression, is of primary interest for literacy development, especially when exploited through a network by discourse, user-generated content (UGC), ideas, or sharing information. Finally, Web 2.0 literacies, having parity with multimodality, is beneficial in terms of translating abstract knowledge through content in different, less textually-reliant, formats: videos, animation, etc. For students to respond in a similar manner requires a certain degree of skills, taken as digital literacy.

2.5.1 Digital literacy and affordances

Digital literacy is an ambiguous term, cited as the core capabilities of 21st century working (Dede, 2010) underpinning multiple ways of using web 2.0 skills and knowledge that are not analogous to conventional 20th century skills of analysis, interpretation, selectivity, etc. It is an ambiguity worthy of a literature review of various frameworks (Dede, *Ibid*) reliant on a technological determinist view that affordances help construct such skills. Jenkins *et al* (2010), cluster 'networking', for example, as searching, scanning and disseminating information. A focus on affordances dressed as 'new' skill sets risks marginalising conventional skills, like literacy and numeracy. Kirschner and van Merriënboer (2013) state that scanning for information is highly complex, involving the identification of information needs, locating sources, extracting and organizing relevant information and synthesizing a variety of information. Their report is highly critical of assumptions surrounding digital technologies as 'inherent' skills of today's learner, showing that regardless of age, learners are not always

“capable of effectively proper search terms, selecting the most relevant websites, and questioning the validity of sources” (2013: 9). Equally, Miller and Bartlett (2012, in Kirschner and van Merriënboer, 2013) found that learners not only struggle to find information but are prone to trusting the first thing found. Learners’ ability to do and act may have limitations determined by “prior knowledge [which] largely determines how we search, find, select and process” (ibid: 10). This would render McLoughlin’s other affordance, of knowledge aggregation, as dubious if what Brown and Duguid (2000) calls *bricolage* (an active navigation of complex information in order to locate something that can be used) is not inherently understood or integrated as a necessary skill within curricula. In time-intense courses, developing such skills is challenging, particularly for teaching staff lacking means. This suggests that blurring formal and informal learning via affordances may be beyond learners control (Clark *et al*, 2009).

FELTAG argues for agility to flexible modes of learning, for innovative practice that deepens and accelerates learning, for collaboration and problem-solving as having ‘real-world’ significance necessary for employability skills. Such bold statements are influencing the framing of national provision and require the professionalization of staff to understand affordances and agree with the terms of assumptions, i.e. ‘accelerated learning’, to be applied. Understanding affordances can enable structured design as outcome-focused, but has no guarantee for effective practice (Kirschner and van Merriënboer, 2013) suggesting the proportion of learning provision related to digital must be weighed against improvements in learners conventional (reading, writing, numeracy) capabilities based on tried-and-tested methods.

Kirschner and van Merriënboer reject self-regulated learning due to a lack of knowledge of the processes involved, while Buckingham (2008) and Boyd and Ellison (2007) state that use of social media activity among young people is more commonly for consumer-based entertainment purposes, challenging the self-determination and collaborative approaches assumed with communities of practice endorsed in FELTAG (2014) and by Merchant (2012). Iiyoshi and Kumar (2008) have claimed the importance of the ways people learn, as much as what they learn, which can also be taken as a need for structural guidance to inculcate affordances. Affordance is an opportunity to exploit and seek to enhance, which depends on the development of a repertoire of supporting digital skills to be properly actualised – otherwise the varied notions of affordance remain potential. Without standard digital capabilities, notions of

knowledge construction, sharing or aggregation, reflective of a level of cognitive learning arising in the papers discussed in this section, remains hypothetical. Embracing digital literacy may obfuscate traditional literacy development, contribute to cognitive load through extraneous activity and potentially hinder progression by conflating personal ability with spurious commentaries of affordances.

Mobility as a characteristic of digital literacy affordance potentially realised by social media is discussed in the next section in order to argue its' case as a means of promoting independence and capability.

2.5.2 Mobility

Findings in Traxler's 2007 *Current State of Mobile Learning* indicate slow uptake in pedagogical affordances of mobile learning, but more recent rapid development suggests accumulation (in knowledge) and will to innovate. Mobile access to classroom resources can positively impact on the interplay of educational provision. Pachler *et al* (2010) see mobility as extensions of classrooms and institutions, claiming connections to the wider cultural world as a resource. Appropriating mobility aligns key relationships of *agency*, *structure* and *cultural practice* assimilated to formal settings. Traxler and Wishart (2011) highlighted sophisticated case study examples of practice, with SMS messaging, access to data on field trips, and mobile-sensing technology illustrating opportunities for contingent learning "where learners can react and respond to their environment and their changing experiences" (2011: 7) and where learning becomes situated in authentic practices in the field.

As an affordance, Traxler (2007) reflects potential for ownership in learners' towards resources, reiterated by Kearney, Burden and Schuck (2010), who posit UGC as an aspect of mobility. Ownership and UGC affordances suggest connectivity and sharing, which depend on knowledge resources, creativity and access, and Traxler (2007) shows that while mobile learning enhances access, development has been uneven. This has been shown elsewhere (Livingstone and Bovill, 1999; Selwyn, 2004). Mobility is often an issue of social economics with regards young people for whom SmartPhone, iPads and other devices allowing for mobile learning are not necessarily affordable or accessible. The appropriation of mobile resources to formal contexts is then an assumption of the learner demographic: mobile resources cannot be appropriated if the tools are not in the hands of the student; ergo, affordances of

mobile pedagogies are compromised. Such issues would be circumvented by a remote locality for activity, such as a social network space, as the site of interaction for 'cultural practice, agency and structure' as opposed to a device specifically. Hardware needed to access software is a challenge of mobile affordances, which Redecker *et al* (2010: 10) state "...enables students to broaden their horizons, and collaborate across borders, language barriers, and institutional walls..." However, it might also be considered that a paucity of knowledge impedes mobility, given socio-economic circumstance as compromising quality education

It may be recalled that in the introduction section of key terms (1.7), Sharples *et al* (2007) definition of mobile learning was explained in the following terms:

1. A focus upon mobile devices
2. A focus upon learning outside the classroom
3. A focus upon the mobility of the learner

In much of this literature, 'mobile learning' is characterised by devices and can conflate the compound mobile (device) and learning (cognitive function). It equates to opportunities for learners to connect – with a community, a teacher, resources or cultural reference points. Mobility is mainly defined here in the second of the terms listed above. Activity resides in the space and the device is a vehicular option for situating activity and act on engagement by enabling greater access. Other affordances are key to situating engagement in a static space through mobile activity, for example 'personalisation', realised in the profile pages of learners, or with membership subscriptions to groups that ratify learners own interests. From an original 'situated space' to connections to member's wider informal cultural interests, personalisation and content creation may be infused with tasks and activities coordinated through the same space by a teacher. Personalisation implies ownership which, alongside connectivity, may promote engagement. Burden and Atkinson (2008) discuss the pedagogical affordance linked to engagement as what educators want students to do – 'agency' as the creation of artefacts - rather than what they want them to know. The creation of artefacts is redolent of active learning, but is paradoxical, as mentioned earlier: what students' create for learning contexts can depend on what is already known. This implies a status of education suitable for learning technology

innovation where learners have mastered content knowledge before it's applied in other, multimodal, forms.

Since solutions for disengagement are sought, the proposal by Kearney *et al* (2010) that mobility overcomes traditional contexts of schools and classrooms (potentially enabling flipped approaches) is of high importance here, as accessing resources remotely (i.e. away from institutional contexts) equates to indicators of self-direction. However, given inherent disengagement in the study's population, a further discussion of learner tensions with web technologies is discussed. This links to later proposals that blended learning as a supporting intervention is needed to enable an enculturation of digital practice.

2.5.3 Summary

Mobility is a central affordance, not confined in meaning to 'devices', as to the ability to connect from remote locations, which indicate enhanced affordances of independent engagement to a community, potentially impacting on individual's attitudes towards study. Crook's affordance of publication may be problematic where low-confidence is common but multimodality, as web literacies, may circumvent this for students using other forms to engage. Finally, a sense of being connected, similar to mobility, allows for more seamless input as residence to network spaces where learning is situated. Without conflating 'being connected' with 'improved engagement', this would enable inquiry from learner to teacher and community.

2.6 Hiding behind the wall – Individual Implications for personalised learning

In Illich's view (1973), schools institutionalise young people to wider social constraints. His proposal of hubs as networks of learners was meant as an emancipating domain where learners pursue inquiry by locating experts, reflective of social media communities. In appropriating social media, it is less social and more a 'walled garden' (McLoughlin, 2007) of the institution, like the VLE. Garrison has discussed the "depersonalisation of the educational process" (2011: 66) caused by e-Learning, but social media may be seen to represent a restoration of personalisation to the extent of networks providing personalisation and coupling learning implicitly to *learner* due to facilities of customised ecology, self-directed communication, access to resources and

multimodal user-generated content. This section explores issues regarding the mediation of social media as cohesive to institutions, teachers and learners.

Interaction with social networks should be meaningful (Pachler *et al*, 2010), scaffolded (Luckin *et al*, 2012) and self-directed (McLoughlin, 2007). Such paradoxical variance poses educators a challenge in differentiation: invite ownership of networks to students, but risk compromising meaningful academic focus as structured towards outcomes, or direct personalisation to classroom objectives and risk diminished engagement of the network (Grant, 2010, Selwyn, 2009). Educators expect willing, motivated members and aim to instil ownership (Kearney *et al*, 2010, Traxler, 2007, Sharples *et al*, 2007) with social media practice, but must align these with concerns for (Redecker *et al*, 2010):

- access and digital competence of learners
- literacy or other special needs that prohibit use
- valid pedagogical methods for learning with social media.

With the expectations outlined in the preceding affordances section, it is important to understand tensions that conflict with those affordances. Students may regard online social spaces as domains where they are emancipated from academic pressures and expectation, or free spaces to become socially cohesive groups (Green and Hannon, 2007). Sefton-Green (2004) frames this as a philosophical issue of young people having a right to a childhood free from institutionalisation, but ultimately points to an understanding of students' interests as enabling improved design in educational approaches. Again, this returns educators to the subject of appropriating (Pachler *et al*, 2010) recreational forms into institutional contexts. When educators appropriate social spaces, it poses a paradox. The Col framework (Garrison *et al*, 2000), shows students may require a teacher presence to translate information into meaningful contexts, yet it's possible the teacher's presence may be viewed as an authoritarian intrusion, inhibiting interaction among young users. Crook (2012) interprets this as a tendency for young people to view institutions as (p. 78) a "critical judge", and where technology has monitored NEETs (Passey *et al*, 2008) it has lead to ethical issues of surveillance, privacy and for whom the technology holds affordance.

Surveillance, as a spectre of authority, is pertinent to this context, positioning the teacher as unwelcome and suggesting that shared online spaces become prohibitive,

hindering expression, with the teachers' presence compromised online and off. Coercion to participate further implies dissonance that prohibits autodidactic self-determination. Anderson (2004) identifies interaction as the greatest Web 2.0 affordance, where "...the architecture of participation..." (Barsky and Purdon, in McLoughlin and Lee, 2007: 666) give rise to co-operation, ideas sharing, group revision, and "...communities can be significantly more productive than individuals working in isolation..." (McLoughlin and Lee, 2007: 667). Clearly, this is compromised where networks are perceived with distrust. Active participation is a necessity of any educational context, but suggesting it as built-in – as 'architecture' indicates – is simplistic, even where it's found that social networks give voice to students not openly contributing in classrooms (Grant, 2010).

McLoughlin (2011) believes that effective teachers must think about process over content, but the re-sit depends explicitly on outcomes (in the shape of 'product' and final grade). There is an argument over whether educators should necessarily have to fit academic curricula with young learners' recreational habits, reiterated by Bugeja (2006) who questions whether fostering a networked online social life is among the proper tasks of education (Sanger, 2010). Selwyn asserts (2009: 75) that commonly used social web tools (*Wikipedia.com*, *YouTube.com*) are mostly used in education for consumption of content, rather than creation. This is echoed by Sener (2007), who found that student-generated content is more often a voice for self-expression, than a means to build on a body of knowledge in the constructivist sense, framed as a broader institutional and societal perspective that,

"Pedagogical models of education presume that students' lack proficiency, relevant experience, and the ability to direct their own learning; students' needs and interests are largely irrelevant, as education is about what society has deemed important for students to learn." (2007: 5)

This alludes to previous discussions regarding digital literacy skills in using tools for learning processes, or in fitting with formal provision. The implications of this in terms of FE students re-sitting English as a core subject are extensive, suggesting potential for a reshaped syllabus in keeping with FELTAGs focus on process over product (rather than repeating an entire course).

Motivating students by teaching staff is nothing new, and assumptions that social media enhance engagement holds no assurance. Berge (2002: 181) states interaction

is a key component of formal education and can be seen as an *expectation* of teachers for students. Social media potentially represents opportunities for improving engagement and enabling students to take more responsibility for their own learning paths and the learning process. Yet this is highly contingent on students' acceptance of socialised forms of learning, and in this demographic engagement is a key tension, illustrated in the next section.

2.6.1 Summary

There are clear issues outlined here, which can be seen as assumptions surrounding the implementation of social networks involving motivation: creating communities does not necessarily inculcate dynamic responses from students. Overt teacher presence may have a negative impact on student engagement, yet educational activity must be central to enable meaningful outcomes. Simultaneously, socialisation improves group cohesion to learning and validating informal interests may be a method for improving engagement to emergent technological forms.

Further issues of student dissonance are explored in the next section to show potential tensions for students navigating complex information online. This leads to a discussion of identity to show that where a challenge is faced with regards to student communication platforms, can be found an opportunity for identity anchored via ownership and curating of learning resources.

2.7 Disengagement as defined concern

'Disengagement' is made as a descriptor of learners' approaches to the course in the re-sit demographic due to the researcher's observations of teaching the re-sit, as well as reports from colleagues and media and widening research attributing it as a factor of poor success of the re-sit subject. Disengagement is presented as an obstacle facing students in the research problem, so existing research is evaluated to explain conceptions of student disengagement. Questions surround whether disengagement is related to attitudinal disposition, social horizons and whether it can be overcome by meaningful learning. This then challenges educators to consider 'meaningful' – a vague term, used with similar proliferation to 'engagement'.

The OFSTED annual national report of 2014/15 for Education and Skills makes little mention of 'engagement' as a specific factor of success, but correlations are drawn

between failing students in schools with progression to university. Students not performing well on the re-sit course have attendance and punctuality issues, with attendance typically problematic because, where students fall behind, it is difficult to recover. In a report on raising grades in the re-sit in colleges, Porter (2015) identifies disengagement in learners' attitudes towards schools, suggesting preference for the college environment as alternate learning context, particularly as FE colleges enable entry to those with low grades when compared to Sixth Form Centres (over 100,000 school leavers entered FE re-taking English, compared to 8,000 re-taking in sixth form centres (Porter, 2015)). However, Salisbury and Jephcote (2008) describe a threshold of entering Further Education as problematic for both those coming from school or those who had gone to employment or parenthood between school and returning to college, describing a state of discontinuity, while older participants returning to study mention anxiety and doubt about their capacity to learn, pointing to disengagement with place, as well as purpose.

The low success of re-sit learners nationally (27% achieving grade C, as 1.2 (the Research Problem) indicates limited progression. It is unclear whether it is that provision is ineffective, whether the learner's disengagement is internally compounded as resistance caused by learning difficulty, or whether the problem is inherent with the course (whether English or Mathematics) itself and its mandatory standing, regardless of provider type. Disengagement may not be limited to the context of learning environment, but curricular or personal to the individual.

Fredricks *et al* (2004) defined engagement accordant to a framework with three components:

- Behavioural, such as participation, attendance and on task behaviour
- Emotional responses, including motivation, comfort and belonging
- Cognitive processes, reflected by a commitment to study through willingness to work, and applied effort in acquiring knowledge and skills.

To this end, engagement is intrapersonal, while the impact of environment, incorporating the institution, the teacher, the classroom and even the wider context of the society outside of the educational establishment, has less influence; such a view risks placing the responsibility of engagement squarely on the student, without account of pedagogy, peers, or course content. Fredricks *et al* (Ibid) find that emotion

and cognition are ‘dynamically interrelated’ (2004: 61), a relationship which is far from straightforward as an explanation for disengagement. The argument presented in this section echoes Murray and Mitchell, who posit that “responsibility for engagement and disengagement is seen to reside not only with the individual student but also with the practices and processes within educational institutions” (2014: 373); the authors identify five main strategies for supporting engagement that show accordance with Fredricks’ identification of engagement:

- Concern for student welfare;
- Positive teacher–student relationships
- Meaningful course content
- A mastery-based approach to learning; and
- Developing students’ confidence in ability and in themselves.

Re-sit students, whether through challenged literacy development or peripheral participation in formal education due to these challenges, may have developed negative self-perception in the values of education and self-ability – findings which are supported by Duckworth and Ade-Ojo (2016), who frame literacy as social capital and transformative, rather than cognitive and instrumentalist. Students perceived as having low literacy may be potentially disenfranchised by socio-economic circumstance or poor schooling and in finding an alternative route in vocational training re-sit qualifications in which they have traditionally and formally struggled, which can have little bearing on their present purpose. In this light, the learner may be unconvinced by their immediate locale context, society’s wider opportunities, and equally by the prospects offered by the educational institution, what Smith and Wright (2015) label ‘warehousing’, resulting in the “spoon-feeding of assessment content in literacy classes” (2015: 404). They cite Simmons and Thompson as having “a discourse which constructed learners as unable to cope with written work and, by implication, to learn successfully in formal settings” (Simmons and Thompson, 2011: 158, in Smith and Wright, *Ibid*).

This is the culture in which FE re-sit students, who arrive onto courses based in workshops, studios and sports halls, and return to a conventional classroom to

succeed on a subject failed in school with less time provided to pass. Arguably the pressure on such students may result in compounded ambivalence towards classrooms and class groups, further negating engagement. The risk is not engagement in the classroom, but of students disengaged from wider educational contexts of learning and training and diminished belief in values of social mobility and opportunity. Further Education, viewed as provision to those from the most disadvantaged backgrounds and lower proportions of those from advantaged backgrounds (Bibby *et al*, 2015: 14), are often “those leaving school with either no qualifications, or close to no qualifications, [who] have little chance of securing productive activity in the labour market”, with FE learners largely taking a ‘second-chance’ at education, making engagement less attitudinal, more borne of circumstance.

Smith and Wright (2015), exploring specifically how literacy is taught to students, identify disengagement as a risk towards becoming NEET. Negative experiences from school or dissatisfaction with opportunities are causes, leading to proposals for “...a more experimental, personalised or culturally specific curriculum is necessary if they are to be re-engaged in education for their own social and/or personal development.” (2015: 402). NEET is a trajectory of disengagement, yet Spielhofer *et al* (2009) highlight deep-rooted attitudes to mainstream education by NEET young people, classed into three groups in the report:

- ‘open to learning’ – 41% of those surveyed: characterised as likely to re-engage with education, with higher levels of attainment and positive attitudes to school
- ‘sustained’ – 38 %: characterised by negative school experiences, high truancy levels, exclusion and lack of attainment and therefore prone to sustained periods as NEET
- ‘undecided’ – 22%: characterised by an openness to learning, but a dissatisfaction with options or ability to access options.

(NB: Spielhofer *et al* state that “due to rounding, percentages do not sum to 100”, 2009: 19)

More flexible and appropriate content, delivery and timing is proposed in training to prevent disengagement. Factors of disengagement were attributed variously to

personal and circumstantial issues (social isolation, past experiences of bullying, homelessness, teenage pregnancy, mental or physical health problems), disillusionment with learning, and, commonly, negative school experiences (Spielhofer *et al*, 2009). Elsewhere, similar circumstances show impact, with risk factors like low self-esteem, low literacy and numeracy, family poverty or transience, gender (usually male), rural locations, socio-economic status and Indigenous background associated with early school leavers also responsible for low course completion in the 'second-chance' further education (Murray and Mitchell, 2014) of Australia.

The range of factors presented here shows a concomitance of contextual obstacles: ambivalence towards formal education, physical access, as well as personal issues as barriers to engagement. Kettlewell *et al* (2012) claim that students 'likely to become NEET' have low-level behavioural problems, low self-esteem and low attainment in a survey of school-aged students found negative attitudes comprised factors such as 'boring lessons', a serious focus on exams (reflecting progression), disdain for some teachers, a lack of available sports facilities and waking-up early. Other findings by Passey *et al* (2008: 9) indicate difficulties with decision-making, self-esteem, and capacity of the participants to think in terms of long-term goals ('beyond a single-day').

Arguably some of these barriers may be overcome by deploying learning technologies, for example 'waking up early' may be adaptable by a freedom to learn 'anytime, anywhere' with less focus on fixed curricula. Dissonance with teachers may be offset by content provision, but to continually seek solutions in technology to human problems defers from deeper-rooted social and interpersonal participation issues. These are aspects of a larger, more serious picture of social factors, involving deeply entrenched personal resistance borne out of negative experiences, inhibited access and institutional gateways to opportunities, and disillusionment that education can positively affect social mobility. As attitudinal as some of these elements are, wider social contexts go beyond the internalised cognitive and behavioural factors cited by Fredricks *et al* (2004) in the section opening as external influences that diminish attributes they class as emotional, such as motivation. This is before further negative perceptions compounded by the compulsory re-sit course are drawn in.

Overall, it appears that engagement is not inherently about personal capability, responsibility and choice, but entails factors such as socio-economic demographic and background, which impinge on attitudes on horizons interpreted as choices.

Transforming antipathy into intrinsically meaningful actions to prevent disengagement may necessarily involve alternative or modified curricula more suited to the FE context, rather than simply providing colleges with the responsibility to deliver in a shorter span what schools have not achieved over several years (Level 2 certification in literacy and numeracy). If technology has a role in reshaping curricula, its impact on engagement needs to be understood.

2.8 Issues with cultivating engagement

Merchant (2012) outlines social network sites as supporting engagement via interaction between members, based as they are on friendship communities and mutual activities, but these are networks not customised to academic contexts. Social media is celebrated for the conjecture of its engaging properties and as supporting students with low self-esteem (Ellison *et al*, 2007), while Northey *et al* (2015) aimed to enhance participation in a Facebook study with grade marks attributed to comments and posts, which appears an inauthentic construct of both community and engagement, as extrinsically rewarding involvement. This Instrumentalist notion conflates engagement with 'achievement' as rewards driven, which may undermine self-efficacy, potential for agency and self-determination. Isolating engagement as effort expended on task (Astin (1984), in Northey *et al*, (2015) reveals attitudinal tensions as disposition. There is evidence among research (Passey *et al*, 2008) with NEETs of popularity with technology, but difficulties with regards social interaction, such as competence at self-expression in English. Barden (2014) isolates dyslexia as a contributing factor to a sense of struggle or failure and views the social interaction of networks as an opportunity to reconstruct social constructs of identity. A case is made that beyond learning difficulties, there are multiple personal and social reasons for marginalization and there is a need for alternative environments which disengaged students can cohabit, that is informal, engaging and in which students can seek support and access resources.

If engagement is an aim of learning activities (rather than an attitude of learner identity), Whitton and Moseley (2014) present a model from their literature review based on: participation; attention; captivation; passion; affiliation and incorporation. Some of these are, again, intrinsic capacities requiring personal negotiation and self-belief in process and outcomes and they disregard potential learning difficulties, and curricula or institutional tensions. Techniques for overcoming disengagement recommended by Murray and Mitchell (2014) for an equivalent tertiary level demographic to FE in Australia, include more pastoral strategies for student welfare; positive teacher–student relationships and an overarching goal of building students’ confidence in their ability. This attention to personal and individual needs is made by others as responsiveness to students’ backgrounds and needs (Kuh 2009; Leach *et al* (2014); Zepke and Leach (2010), all cited in Murray and Mitchell, 2014) and as care, respect and support shown by teachers for students (Attwood *et al.* 2004, 2010; Harkin 2006; McGregor and Mills 2012), while Livock (2009) emphasises one-to-one help being on offer. Elsewhere in the report, small class sizes are suggested as well as flexible courses that support some autonomy (Harkin, 2006; McGregor and Mills, 2012; Wyn *et al.* 2004), all cited in Murray and Mitchell, 2016). All of the above are supportive to student capability, but some leverage against need for constant support may also be necessary at this educational stage of ‘emergent adults’, because where perpetual personal support is continually furnished, autonomy might be diminished. This is because in another sense entirely, disengagement is cognitive, as Fredricks *et al* (2004) state: effort and commitment are necessary personal attributes to be engaged and singularly are the responsibility of the student. Zhao and Kuh (2004) draw on Piaget to explain how a supportive learning community will accentuate learning through the induction of disequilibrium, represented as new knowledge, schemata and/or community member contributions. In order to develop student capacity, learning must be supportive but where this is provided, it must also be challenging, so participation and personal motivation are expectations.

From social constructivism perspectives, where collaboration, participation and the group dynamic are contributory to learning agenda and purpose, autonomy in itself is a form of disengagement, in the sense of it as disengaged from an environment and community and working to individual, rather than collective, goals. Balance is needed to enable autonomy and provide support allowing for holistic engagement based on

student well-being and positive learning experiences as appropriate to the L2 re-sit demographic in the UK, and as framed within the social constraints and negative experiences typically endured by students, as outlined already.

The risks of disengagement as effect are clear, but its causes less so. Partly, disengagement is personal responsibility, although institutions must ensure accessible and meaningful learning – in activity and in terms of relevant course objectives which adapt mastery-based approaches. Murray and Mitchell (2014) cite a competency-based assessment of mastery learning where students practise skills and re-submit until set levels of competency are met, which may be accomplished on vocational courses. A less easy fit may be found with the prescriptive, mandatory course delivery of re-sit GCSE. Indeed, the outline of Engagement Theory, which Kearsley and Schneiderman (1999, in Miliszewska, I., and Horwood, J. (2004), claim results in learning that is creative, meaningful, and authentic, is based on three primary means to accomplish engagement:

1. An emphasis on collaborative efforts
2. Project-based assignments, and
3. Non-academic focus.

Parts two and three are not easily aligned with the current Level 2 course defined by the English National Curriculum. Therefore, if the curricula cannot change, provision must. The varying reports cited identify a plethora of factors for disengagement. Notable from the earlier Community of Practice section (2.4.1) is Clark's claim that 'media' has no bearing on motivation, yet a corpus of research aims to locate correlation between social software, activities, affordances and engagement.

Central to engagement in the Level 2 re-sit context is to construct a learning environment that enables the negotiation of goals at a learner's own pace, with support mechanisms available in the shape of resources, teachers and other students. From this it may be assumed that where individually there is a personal belief in the holistic purpose of doing something – of learning, a belief in education as leading to opportunity, or a conviction in the syllabus – this may be reflected in meaningful action and a sustained orientation towards goals and objectives: engagement. A means to

locking into this while apportioning responsibility for the engagement onto the student directly is in the construction of communities, where mutual engagement - rather than purely personalised ones - may help improve a focus on objectives generally.

2.8.1 Summary

This section has aimed to address issues linked to engagement. It has discussed how FE institutions have a responsibility to provide curricula meaningful learning to support engagement as a major obstacle to retention and progression. 'Meaningful' is an ambiguity, but engagement was construed as personalised support for learning, for welfare and personal development, as well as a conviction in educational goals and values to those who may have past or ongoing negative social or academic experiences. If emotional and cognitive support is forthcoming, a learner's responsibilities of participation become motivated. A degree of challenge is necessary in learning tasks or contexts to facilitate capacity and development, which can be problematic when re-sitting qualifications; learning environment is integral to this and a supportive one allows flexibility and autonomy. It is posited that a strong community presence can help to enable engagement and that a community can be accentuated by interaction within social networks, which could allow for more personalised, one-to-one support and flexibility to learning, framed earlier as 'mobility'. The question of self-regulation or autonomy to meet objectives is less distinct, since digital literacy skills required to support an autodidact approach are not straightforward. Regardless of familiarity of habits with social media, there is quite possibly correlation between ability and autonomy (Kirschner and van Merriënboer, 2013) that inhibits self-determined learning approaches. This creates two central issues to the negotiation of goals: knowledge required for self-regulation (in the shape of content and skills of searching and analysing) and attitudinal approaches (in the shape of engagement to participate). This is addressed further in the next section, which discusses students who operate on the periphery of cultural practice, which is reflective of the habits of 'lurkers' online in social networks.

2.9 Learner dissonance: Elegant lurking of peripheral participation

Garrison (2011) posits that socialisation enables cognitive outcomes in online communities of learning; but as seen in the previous section, participation by members can be hindered by a range of behavioural and emotive factors, impacting on overall

engagement in online communities. As the dominant voice of the teacher may impact on learners' perceptions of a network (dominant by becoming the main presence of communication to drive learning outcomes), an understanding of issues from the individual learners perspective needs to be explored. In this section, a discussion of associated research is outlined.

As Rientes and Rivers (2014) observe "silence may prevail" in e-learning environments (especially - but not only - when activity is expected to be made remotely) due to a variety of reasons. Students may struggle with the cognitive challenges of a course in the first instance, but while silence can be misconstrued as confusion – or a lack of effort - it may equally be a lack of access with technical equipment; framed by dyslexia; limited digital literacy knowledge; a lack of confidence with publishing views; or lurking as "legitimate peripheral participation" (Lave and Wenger, 1991), i.e. where a student passively observes, before becoming involved. 'Lurking', unlike the above, is a phenomenon with more negative connotations. Beaudoin (2002) found that lurking, while a low level of activity (like logging on and reading) can still be considered interaction, despite assumptions that it is perceived as low engagement, or "witness learning" (Fritsch, 1997). Beaudoin claims that "performance cannot be easily correlated to participation or that frequent participation necessarily leads to better performance on graded assignments" (2002: 151), though high participants in online activity achieved better grades than "no-visibility" students, but low visible students (i.e. with minimal contributions made) achieved slightly better than those in the middle-range of activity.

Beaudoin speculates that low-visible students may be reflecting or processing information they have followed without responding with their own contributions to the online space. This is an interesting alternative to what is too readily assumed: that high involvement reflects cognitive engagement on task and as response to inquiry. Zhao and Kuh (2004) in a literature review of learning communities and engagement stress the significance of social interaction and that membership sees gains in critical thinking and reading comprehension (citing Blimling, 1993; Pascarella, Terenzini, and Blimling, 1994, in Zhao and Kuh, *Ibid*), while ceding that the link to improvements may be less direct and community membership may enhance "overall involvement in educationally purposeful activities, which in turn directly and positively affects indicators of student success (e.g., persistence)." (2004: 118). The distinction here is

'involvement', as opposed to membership, potentially latent. Involvement is active participation and the impact in the quote appears to be made on positive developments in student identity, rather than specific cognitive realised gains.

Lurkers state that reading forum posts is 'enough' activity (Mazuro and Rao, 2011, and were still learning about the group (which suggests socialization precedes participation); shyness was cited as an emotional barrier of participation, while 'being wrong' inhibited posting comments (Beaudoin, 2002). More contentious is the assertion common to both studies that lurking is not preventative to learning. Mazuro and Rao (2011) point to lurking as not necessarily distinct to a particular group type, but a behaviour all users may enact, even claiming that this happens at specific points on a regular basis by all members. A negative impact that is not discussed is in terms of participation as, if students largely do not contribute, then push and pull power dynamics emerge, with dominant voices presiding, i.e. the teacher or more confident members of a community. In this sense, an online space has similarities with existing behaviours in classrooms and seems to reinforce those, rather than allow for inclusion particularly with regards affordances such as multimodal literacies (Crook *et al*, 2008) whereby students have an improved range of ways to interact.

A responsibility of educators is to ensure inclusion, particularly in a context such as FE and in a Level 2 re-sit which, as seen in the previous section on disengagement, supports students at the periphery of social advantage and who may be vulnerable to isolation or potentially NEET. As such, it may legitimately be argued here that those students do not become left behind to inclusivity opportunities. The significance in this section has been on lurking as being 'goal directed' and purposeful, but silence taken as 'legitimate' behaviour, in the sense that Lave and Wenger legitimise as peripheral participation may belie deeper problems. The next section looks at research that acknowledges the significance of emotional presence online, in order that this is understood in the context of the research design (Chapter 7).

2.9.1 Emotional presence

An extensive literature review by Rientes and Rivers (2014) highlights the significance of emotional indicators as online data revelatory of learners' abilities to be engaged (to self-regulate, manage tasks and workload) and succeed. They show how emergent analytics can help identify and explain how and where emotions impact on behaviour

and cognition, which include the reflective use of content analyses to explore user-generated data.

Negative emotional presence indicators signify dissonance with learning, leading Cleveland-Innes and Campbell (2012) to highlight it as a domain significant enough to be adapted to the Community of Inquiry framework, which holds with Krashen's (1985) Affective Filter, where emotions prevent effective learning. If emotive disclosure has presence in analysis, it can be understood, yet Artino (in Cleveland-Innes and Campbell, 2012) states that online learning research has paid little attention to emotions, despite its significance in learning processes. This is not only in ways that Krashen claims as negatively impacting on cognitive function and effort, but also in the construct of social presence, which can facilitate cognitive achievements and behavioural manifestations, such as motivation or peer-support.

The place of emotion in the original Col model (Garrison, Anderson, and Archer, 2000) is positioned within the social presence domain directly. Cleveland-Innes and Campbell observe seven of fifteen indicators for social presence are emotional signifiers; given Col overlaps in presence, while engagement may be facilitated and prohibited by social presence, correspondence between emotion and cognitive presence could also impact on (dis)engagement. Cleveland-Innes and Campbell (2012) discuss the implications of varying emotions and their potential for helping or hindering learning, citing Damasio (in Cleveland-Innes and Campbell, 2012: 271) who "indicate(s) that emotion and cognition are innately intertwined", as also stated earlier by Fredricks *et al* (2004). Understanding of emotions contributions to domains is simplistic and reductive: Damasio states that positive emotions are positive conditions for cognitive performance, and vice-versa with negative emotions; a reading that doesn't take self-determination into account through circumstances education sometimes subjects students to – deadlines and exam pressure, which is when some students may find their selves *more* capable of performing. Persistence, for example, can emerge as a behavioural response to struggle – especially where support from educators and institutions is pronounced on the developmental aspects of learning related to resilience. It's crucial for educators to be cognizant to signs of emotions communicated in online space where it might signify that further, potentially face-to-face recourse, is necessary. An issue may be that it is, presumably, easier to detach from struggle online. If mobile activity is perceived as supplementary, rather than

necessary, learners can easily experience dissonance and depend on classroom intervention rather than self-determination.

Noteborn *et al* (2012, in Rientes and Rivers, 2014) have outlined the difficulty of educators in online contexts to correctly understand learners' feelings. This is reflective of the ways silence can be misread, discussed earlier. If educators cannot rightly comprehend these experiences as possible tensions to learning, then they may not be able to provide appropriate support, advocated as a blurred role between teacher and emotional presence (Stenbom *et al*, 2014, in Rientes and Rivers, *Ibid*). A paradox in online learning are that traces of activity need interpretation by educators as visible signifiers of engagement, which is predicated on participation. Silence is difficult to read, with diverse interpretations possible, suggesting boredom, uncertainty, disorientation, or lack of access. Alternatively, offline conversation will help an educator remedy problems, but only by response, rather than in the process. More difficulty is attributed to identifying the cause of emotional tensions.

Manca *et al* (2014) report that supporting HE undergraduate courses with Twitter contributed to 'cognitive overload' in the extra tasks of learning the skills required as reducing self-efficacy and as 'stressful'. This equates social media channels as commensurate to extraneous tasking (Mayer, 2001), obscuring pure learning aims and diverting, rather than enhancing, engagement. Manca *et al* propose dissonance as a disengaging factor in overwhelming students with material, even where an educator perceives such notifications as advance organisers to processing goals. Twitter is a drip feed, continually dynamic and potentially saturating, based on posts from a large community membership. In contrast, in the present study, Edmodo would have fewer posts, but of longer length, more focused on specific approaches and outcomes. Students associated with the research problem in this study, many with learning difficulties associated with reading and writing, may find textual-based communication impacts negatively on an ability to 'keep up' if finding older posts made that they have missed. Alternatively viewed, posts are archived as static in posterity (for example, as in instructions of what to do to complete a task) and easier to save and locate, enabling students to revisit, and potentially improving retention.

It is possible to imagine how content flow can impact on students' affective experiences in accessing online study, potentially isolating by diminished teacher

presence, and disorientating if instruction is unclear. Indeed, Bayne and Land (2013, in Rientes and Rivers) suggest insecurity arises through displacement from the classroom context and a loss of identity in online groups. Yet an affordance of a visible online network is a system of augmenting signs and directives as Signalling Principles, which are shown by Mayer as highlighting the organisation of essential material as particularly useful when used sparingly and for learners with low-reading ability (Mayer, 2001). Notification reminders and questions could help to scaffold necessary regulatory approaches, to train attention to main concepts, improve reflection on previous work, as well as anticipate future work, with extraneous material diminished. Alternatively, signalling may equally impede progression, as it can add no new information to support higher-ability students, who may find the network operating too slowly for their needs. Differentiated content-posts require consideration of learner's needs and of how to direct notifications to specific learners in order that differentiated posts don't inadvertently cause unintended disorientation, for instance, with the wall best utilised as a platform for the whole group and direct messages or smaller group pages used for individuals with higher and lower needs.

Emotions shown here conflict with previously cited affordances: in Manca *et al's* discussion incidence of 'reluctance' to be involved are reported, contradicting the participatory (Banaji and Buckingham, 2010, Harris, 2008) opportunities normally associated with Web 2.0 tools, reflecting low confidence in publication (Crook, 2012), difficulty in technical understanding, and even resentment of a personal online space, all suggestive of a strand of Web 2.0 as divergent to socialisation, owing less to digital inequality (Selwyn, 2006) and more to individual choice. With social spaces, communication is open and visible; educators must be vigilant to low confidence and cultivate a sharing culture though high levels of positive encouragement and strong rapport between members. Leese (2010) discusses dissonance with formal educational cultures as arising from an impoverishment of cultural capital - factors from upbringing that impact on personal language use and behavioural responses, which among Further Education students moving on to Higher Education may lead to a sense of an 'alien environment' (Askham, 2008, in Leese, 2010). Socialised cohesion within groups aids transitions between FE and HE cultures, as equally to transitions between school and FE. A large part of this transition is expectation; Askham (*Ibid*) outlines how (adult) students from FE arrive in HE with anxiety

surrounding personal and interpersonal expectations, which is distorted and magnified by past academic experiences. Situating the 'publication' of language as normal behaviour in networks may help to overcome literacy inhibitions, enmesh authorship with audience, and represent opportunities for students to re-write personal academic narratives (Duckworth and Ade-Ojo, 2016) as empowering to identity. However, as equally as confidence can be nurtured in visible contexts, anxiety can be magnified.

The familiarity of social networks can support interpersonal integration and calibrating them for educational purpose could help legitimise peripheral members and blur boundaries between formal and informal experiences. This may be predicated on the basis that students see any social network tool utilised by a teacher as 'safe' and 'inclusive' and teachers not perceived as an intrusive 'other'. As emotion is a behavioural trait, being situated in a visible environment may make expression vulnerable to what Bandura labels 'modelling'. In Bandura's Social Learning Theory (SLT) (1971), negative expression is concentrated and can be socially modelled in mimicry by others observing those attitudes, reinforcing the negative behaviour traits to discourage and de-motivate. Conversely, SLT suggests the opposite can be manifest. A network can induce positive learning behaviour by participants observing others actions in the network, for example receiving a teacher's feedback from a post may result in others mimicking that by posting their own work or by participating in a discussion. This is simplistic in overlooking individuality in choices surrounding peoples' behaviours, but there are implications for peers forming communities in openly visible networks for activity, performance, participation. Educators exploiting social networks must be aware of visibility as a hallmark and allow for behavioural codes (Boyd and Ellison, 2007), including affective disclosures, as normal.

2.9.2 Summary

The purpose of this section was to emphasise emotional presence in online learning contexts as part of the social presence, and also how social presence present in networks may alleviate issues. The focus is on emotional indicators of dissonance or potential for it, which may include cognitive traces, such as confusion. Emotion is a hugely complex area, least of all online emotional signifiers, and no aim to capture the field was intended here. However, where cognitive dissonance and emotions may be concealed, disguised or not apparent in classrooms, online learning spaces may present other opportunities for detection of negative emotions impacting on attitudes

or ability to engage and progress. These are increasingly revealed by content analysis as present in artefacts, which this study will adapt as discussed throughout 6.2. This section focused on negative emotional traits, but an exploration of this topic cannot disregard the opportunities for social media to allow individual identity a domain for social construction and performance, which is discussed in the next section.

2.9.3 Issues and opportunities with learning identities

Social media has been shown as a convergence of different domains, which contain possible emergent affordances for congruent learning skills, community participation, and communication methods. Issues surround unrealised hypothetical claims of technology, student access, teacher skills competence, institutional apprehension, as well as issues, such as the potential reticence of learners to willingly participate. In this section, reports on how learner identity is mediated by web 2.0 tools are explored, from a principal perspective:

“...Models of learning based on social software can facilitate the shift from what Brown and Duguid (2000) call *learning about* to *learning to be*, or ... *learning as becoming*. *Learning about* implies a passive consumption of knowledge in the form of facts. *Learning to be* implies the application of knowledge in the development of skills that allows us to fulfill a particular (professional or non-professional) role in society...*learning as becoming* signif[ies] an ongoing process.” (Mejias, 2005: 4)

This view is in keeping with FE or tertiary contexts as a threshold to later stages of lifelong learning in the vocational sector and higher education. On learner identity, Sefton Green (2004) agrees with Walther (1996) that motivation from learners requires a level of emotional investment in ICT, which Buckingham (2008), Livingstone and Bovill (2002), and Facer *et al* (2003, in Buckingham, 2008) render as the construction of ‘self’ in a fragmented and fluid digital world.

Assumptions abound that today’s youth are seen as digital natives (Prensky, 2001) competent e-citizens with developed online identities performed in vast online public spaces, prolific with voices from varying institutional and individual sources. Ito *et al* (2013) illustrate this issue as one where modern life, by virtue of technology, is entwined within a broader remit, where (2013: 41) “...young people’s actions, individually and collectively, intersect with key institutions in their lives and a wider

array of media and communication possibilities open to them.” It is also suggested that online tools constitute improved means of self-presentation (Greenhow *et al*, 2009) in a relatively recent complex world where young people are “technologically repositioned at its core rather than periphery” (Selwyn, 2008). As discussed in earlier sections, the affordances associated with student-centred approaches fitting a remit of digital literacy require educational institutions to take on board skills development in a broad curriculum, which can be problematised by teacher’s own skills and knowledge.

Bauman (in Buckingham, 2008: 1) considers that identity in the adolescent has become ambiguous and fragmented, with young people positioned centrally as shaping new meanings of identity, amidst a “dizzying array of signs and symbolic resources dislodged from traditional moorings” (Dolby and Rizvi, 2008 in Bourn, 2008: 2). Davies and Merchant (2009), describe online identity as ‘presence’ - traces of activity deposited on sites, which can enable a form of social participation and Walther (1996) highlights the key of social presence as shaping meaningful structures to identity and its expressions. The cultural impact of the web allows for “dynamic and shifting constructions and presentations of self” (Coiro *et al*, 2008: 526) and opportunities for ‘virtual’ identities to be constructed, presented and narrated publically (Mallan (2009 in Barden, 2014). If a parallel can be drawn between the affordance described earlier as ‘publication’ and the performance of online identity in the social web, the resonance for ‘engagement’ may have profound impact - if malleable to academic identities.

According to Greenhow *et al* (2009) activity in the participatory web helps to develop online identities, while Barnes *et al* (2007) claims that students come to lessons expecting to exert these identities into the learning process. This is shared by Roblyer, McDaniel, Webb, Herman and Witty, 2010 (cited in Barden, 2014) who report that young people are motivated to learn through online social networks in the classroom. Barden promotes social networks as authentic, being “in tune with broader cultural, Web 2.0 influenced shifts towards social constructivist epistemologies.” (2014: 2).

Potter’s cautions (2012: 2) “...there is no easy way of bringing together the arguments made about identity and representation in socio-cultural theory with those made in learning theory.” He proposes that social media can enable individual gains in social capital, and that “...notions of ontological security can be framed in the context of new

literacies.” (Ibid). In operating and collaborating in a space where literacy is reflexive and ongoing, students are active agents in identity construction. For Potter, a sense of curatorship among students emerges, which collects, distributes and exhibits management of the self across social media: a reading of online activity suggestive that recreational activity can be complementary to formal academic development. There is something of the abstract in this; our devices collect data as we roam the internet and build up a profile of use: theorists associated with New Literacy Studies, which views reading and writing as situated within social and cultural practices, suggest a similar manifestation occurs as websites are navigated and that interactions influence who users become. This encapsulation of situated Communities of Practice sees shared sets of language codes result in “concomitant changes in identity” (Gee, 1998: 2). Crowley (in Gee, 2000) talks about “islands of expertise” in language use: individualised language local to personalised interests, allowing the user to speak fluently on a personalised subject in a field lexis. For Gee, these social languages mean users adopt an identity when entering community discourse. Although the language use of that network may be informal, colloquial or – adversely – situated to the ‘subculture’ of the English GCSE syllabus, there is only a single, fundamental purpose in joining the community: to situate one’s identity as a course student. Where discourse begins, embodiment to that culture becomes situated.

This view corresponds with Crook’s (2012) communicative affordances of literacy and, particularly, publication, which he situates within formal and informal contexts. Formally, in school contexts, literacy helps develop text and oral fluency to generate production; publication may support institutional communities. Informally, these characteristics help to establish mobile “local” communities at classroom level, generating discourse and a culture of peer-interaction, with findings that social networks function as sources of emotional support, platforms for self-presentation and help in maintaining relationships (Greenhow *et al*, 2009). Such a view is common to New Literacy Studies, such as Discursive Psychology, with notions that emotional discourse are shared as accounts or narratives that allow negotiation of social interaction, rather than private - and one might think uncomfortable – public thoughts.

Participatory opportunities in organised communities have synergy with individual identity formation facilitating an authorship of the ‘self’ (Merchant (2006), with Boyd (2007) suggesting young people ‘write themselves into being’ via active social

networking. Portfolios and personal learning logs (Traxler, 2007; Downes, 2004, Pachler *et al*, 2010) can have value when employed within formal curricular contexts. Hughes, Herrington, McDonald and Rhodes (2011, in Barden 2014) report on positive reframing to a sense of failure among students with dyslexia using social network sites. Similarly, Ellison, Steinfeld and Lampe, (2007, in Barden, 2014) found that students with dyslexia gain social capital (defined as relationships and levels of trust) from use. This has potential with this study's population, with other gains attributed to an imagined concept of audience, also suggested by Alverman, Hutchins and McDevitt, 2012 (Ibid) as a sense of belonging in a space promotes confidence. Barden reports this as enabling a sense of *becoming*: of reconstructing identities from failures in literacy to success (Alvermann 2011, in Barden). Changes in identity representation described by Alvermann have resonance with the notion of 'learning to become' framed by Mejias citing Brown and Duguid (2000) at the outset of the chapter. For the re-sit learner, affordances of public performance in personalised safe networks may help foster attitude improvements that have been impaired by low self-esteem. There may be increments in motivation towards learning through opportunities to practice and interact with language in social networks as informal contexts than formal ones, such as essay assignments.

2.9.4 Summary

Education is one influencing factor on youth identity among social media communities, where various practices operate. While there are assumptions that recreational habits abound, there is a rationale given the research presented for tools like social network sites to be implemented into educational practice, but recreational habits are not easily translated into purposeful learning agencies. Potential positive influence on the development of literacy is an opportunity with the research problem. The affordance of 'publication' in highly supported contexts may help with students whose identities are framed around low self-esteem.

The next chapter outlines theories that underpin the wider Inductive Research Design of utilising social networks to create communities of practice and raise engagement. These include situated practice as enabling community, instructional design models of creating cohesion to online technologies, theoretical models of improved learner capability, and theories about Social Interaction and their effect on personal identity, before concluding with an explanation of theory that informs the epistemological view

taken of technology use in social learning and how this becomes operationalised in praxis (Activity Theory).

Chapter 3: Theories of Learning – Agents and Objects

3.0. Organisation of the chapter

Social learning theories related to the study are outlined next, beginning with a hypothesis of how these influence pedagogical thinking about how social networks can provide direct practical support. Theory related to developmental research of student capability are explained, before institutional models of technologically informed provision are reviewed which then leads on to how Interpersonal theory inform community models. This leads to an outline of Activity Theory (4.1) as an epistemological view of learning technologies before leading into discussion of Methods (Chapter 5).

'Mobility' is conceived as ubiquitous in the culture of youth; an assumption is simultaneously made of the learner as passive and disorientated, defined by Pachler *et al* (2010) as a 'mobile complex': changes in the world characterised by "...fluidity, provisionality and instability, where responsibilities for meaning-making as well as other risk-taking have been transferred from the state and its institutions to the individual" (2010: 2).

For the teacher and institution to host learning that is engaged in a discourse of goals and objectives, then a perception of Situated Learning becomes a more plausible concept with which to conduct activities of a learning community. Brown *et al* (1989) claims that classrooms, as a basis for learning, are inauthentic contexts separated from real-world into representations. Shifting activity to social networks, a microcosm of 'real' social constructs is replicated in the design of community and social interactions and communications with audiences to those actions: a representation, rather than a lived experience. If online spaces reflect the wider contexts of recreational digital environments where young people interact, there is a case for assistive technologies supporting engagement and orientation to learning. This takes community as a base, helping to enable participation and provide for richer activity.

3.1 Situated Learning Communities as static residence and praxis

It has already been discussed how mobile devices enable access to spaces (such as networks). Notions of community assume 'belonging', framed in this section title by 'static residence'; types of behaviours and actions within that network community are informed by theoretically-informed principles and strategies, or 'praxis', constructed by a teacher. The main tool of a network is its communication. In *Situated Cognition and the Culture of Learning* (1989), Brown *et al* criticise classroom practices of learning languages and vocabulary, where words are isolated from wider contextual sentences and framed in course books, which de-contextualise meaning:

“Learning from dictionaries, like any method that tries to teach abstract concepts independently of authentic situations, overlooks the way understanding is developed through continued, situated use. This development, which involves complex social negotiations, does not crystallize into a categorical definition. Because it is dependent on situations and negotiations, the meaning of a word cannot, in principle, be captured by a definition.” (1989: 33)

Situated Cognition is supported by models of contexts, Communities of Practice as Situated Learning, for instance, by developing beginners into experts. What is further taken from the theory is the notion of tools as inherent to the social and cultural contexts of learning in communities, since:

“People who use tools actively rather than just acquire them, by contrast, build an increasingly rich implicit understanding of the world in which they use the tools and of the tools themselves. The understanding, both of the world and of the tool, continually changes as a result of their interaction...The community and its viewpoint, quite as much as the tool itself, determine how a tool is used.”
(*Ibid*)

Within the interplay of members, teaching and learning activities are carried out alongside informal (social) communications with the intent to assimilate ideas and develop language ability as normative. Situated Learning is proposed here in the context of social networks and fixed online communities as *static* site of sustained

engagement, where students orientate identities in resident actions (i.e. logging in habitually, reading and responding to notifications) geared towards goals. This situated residence anchors (Merchant, 2006) habitus and disposition (identity behaviours) into deeper engagement. Members seek validation and confirmation of their inquiries and findings from the group, or teacher and, critically, seek emotional support, or lurk – which, while discussed as a potential indicator of disengagement or confusion – is legitimised within the community as a threshold of agency.

The above section described further the learning theories surrounding the Community of Practice, introduced in 2.4.1. As the thesis moves towards the research design elements, this theory section now takes on elements that contribute to the construction of a Community of Practice, beginning with the notion of Appropriation.

3.2 The Mobile Complex and ‘Appropriation’

With the notion of the mobile complex, Pachler *et al* (2010) recommend ‘appropriating’ mobile tools, defined (Sharples *et al*, 2007) as ways that tools are adopted to purpose and requirements. Educators may have different notions of the use of the social network space from learners, notions taken from theory or describing affordances of use. Some of those expectations headline this section (blended formal and informal use and content; targeted tasks that scaffold students towards objectives, asynchronous communication, the support of a teacher and community presence, etc).

An affordance of mobility is the basis of the flipped learning pedagogy, where lecture-based (declarative knowledge) material is accessed away from the classroom (via technology), allowing face-to-face interaction to be based on other activity, such as procedures of ‘how to’ (procedural knowledge) and problem-solving. This challenges the internal and social *lifeworld* of the student by transferring an agency of responsibility to them. While the boundaries become blurred between institutions, as Pachler, *et al* (2010) notes, this convergence between separate worlds and obligations may not be shared by students, and enhanced affordances (communication, creativity, collaboration) recede creating dissatisfaction, as Strayer’s (2007) study of the flipped classroom shows:

“...students were less satisfied with how the structure of the classroom oriented them to the learning tasks in the course. The variety of learning activities in the flipped classroom contributed to an unsettledness among students that traditional classroom students did not experience” (2007: 4).

‘Flipped learning’ creates an inordinate expectation on external motivation, as students may only consider study to ‘belong’ within an institutional environment. Social media extends as a mnemonic aid in the Vygostkian sense of a knotted handkerchief: a notion of ‘signs’ appropriated to mobility, specifically ‘push notifications’. The notification (a signal sent to a subject’s phone or email) that a post to a network has been uploaded may be aligned to Behaviourist considerations of stimulus (Notification) generating response. The teacher may assume that a notification prompts a ‘checking-in’ to a network and bridges social, personal and academic identities. According to Vygotsky, a culture’s mediation of signs (interpreted to a network as resources, questions, communications, video demonstrations, reminders or posted learning tasks, etc) leads to development and transforms psychological functions. In this sense, signs - pervasive mobile notifications that impact on the learner in personal, private moments – may enable choice of agency, i.e. how to respond to the communication, though Vygotsky says these may not always be conscious decisions. The social network and any device is a tool and its communications are signs that facilitate symbolic interactions of learning between the students with the teacher and with the community of students. This study is concerned with the impact of social networks on disengaged students – the risk is that students reject the communication, which may compound disengagement, although the agency of ‘choice’ (accept/reject) may not only act on the mobile presence but also create a new opportunity for engagement. How the teacher communicates, as well as how often, are critical parts of this presence and impact on engagement, as students engage with the culture by ‘logging on’ and responding to communications.

3.3 'Teacher presence' in situated learning communities

Garrison's positioning of the teacher presence as a key factor of online Learning is critical; in his view, the teacher's role is redefined, though the duties he describes for an e-learning context replicate conventional features of a teacher, setting "*clear expectations, critical discourse, and diagnosis of misconceptions* (2011: 55), which are categorised for the Community of Inquiry in text-based computer conferencing (of higher educational settings) as:

- design and organization (set syllabus online, design methods, establish time parameters, establish behavioural standards)
- facilitating discourse, (sustaining and sharpening communication towards objectives, comments on response, draws others in, creates instructional activity, models behaviour)
- direct instruction (sharing knowledge of subject matter)
(Anderson *et al*, 2001)

Discourse in a Community of Inquiry is driven towards higher levels of learning with reflective participation, as always implicit to learning. The above criteria can be mapped closely to classroom practice, what Cochrane sees as the retrofit of "traditional pedagogical strategies and pre-existing course activities onto mobile devices and social media" (2014: 1). It's difficult to see that these types of online activity would hold much attraction to students who are disengaged with the syllabus in the classroom environment, or require further assistance or challenge. The practices are highly textual in basis, which negates the more inclusive opportunities to situate multimodal and emergent literacy forms of expression (such as video or image) within online networks. This may be important for teachers to consider when having a role with design functions and features or when supplying resources. Alternatively, teachers may negotiate participation with students by permitting responses as multimodal. This fits with suggestions made to encourage re-engagement made by Smith and Wright (2015), as the relevance of digital literacy empowering students who may become NEET.

A clear Constructivist strategy for implementing theory in praxis is provided by Warren and Wakefield (2011) as the Learning and Teaching as Communicative Actions theory (LTCA). While highly communicative in approach and again arguably reflective of

classroom habit, the focus is on use of communication via social media tools, such as Twitter. The teacher's role in facilitating goals arrives by:

- setting *normative* standards - acceptable ways to behave, communicate and act in the domain
- Relaying *strategic (or teleological)* actions – similar to 'instructed activity' in a conventional sense, but predicated on allowance for choice according to the authors, who give an example of a strategic action as completing a reading or assignment
- Constative actions – truth claims by a participant, which may be rejected, negotiated or counter-claimed by others, which leads to discourse and the construction of knowledge, which may presumably be facilitated by a teacher
- Dramaturgical actions – described as expressions of understanding, often as creative statements, for example in English GCSE this might be a story or poem written after a period of studying theory of writing techniques.

There is some issue with the claims as linear hierarchy and as stemming from the educator. Nevertheless, it is constructive to purpose, for example as situated in discussion threads. If discourse is not to be framed synchronously, but rather – as with discussion threads – as asynchronous, inclusivity is better enabled than depending on 'live' discourse. To support 'mobile engagement', teachers may focus on informal and social use: engaging students' *lifeworld* may be negotiated, for instance by gauging students' views based on real-world experience, or by teachers sharing their subjective experiences to overcome boundaries of 'otherness' between the teacher and student. Although boundaries might be communicated as normative actions, teachers can create a less formal ambience with colloquial language (if appropriate), or use of humour.

The teacher's presence may become more discrete, as noted in the 5-step model (Salmon *et al*, 2010), in which, as student interaction is negotiated and gradually scaled-up towards fuller participation, teachers withdraw, so their role becomes more of activity moderation and mentoring.

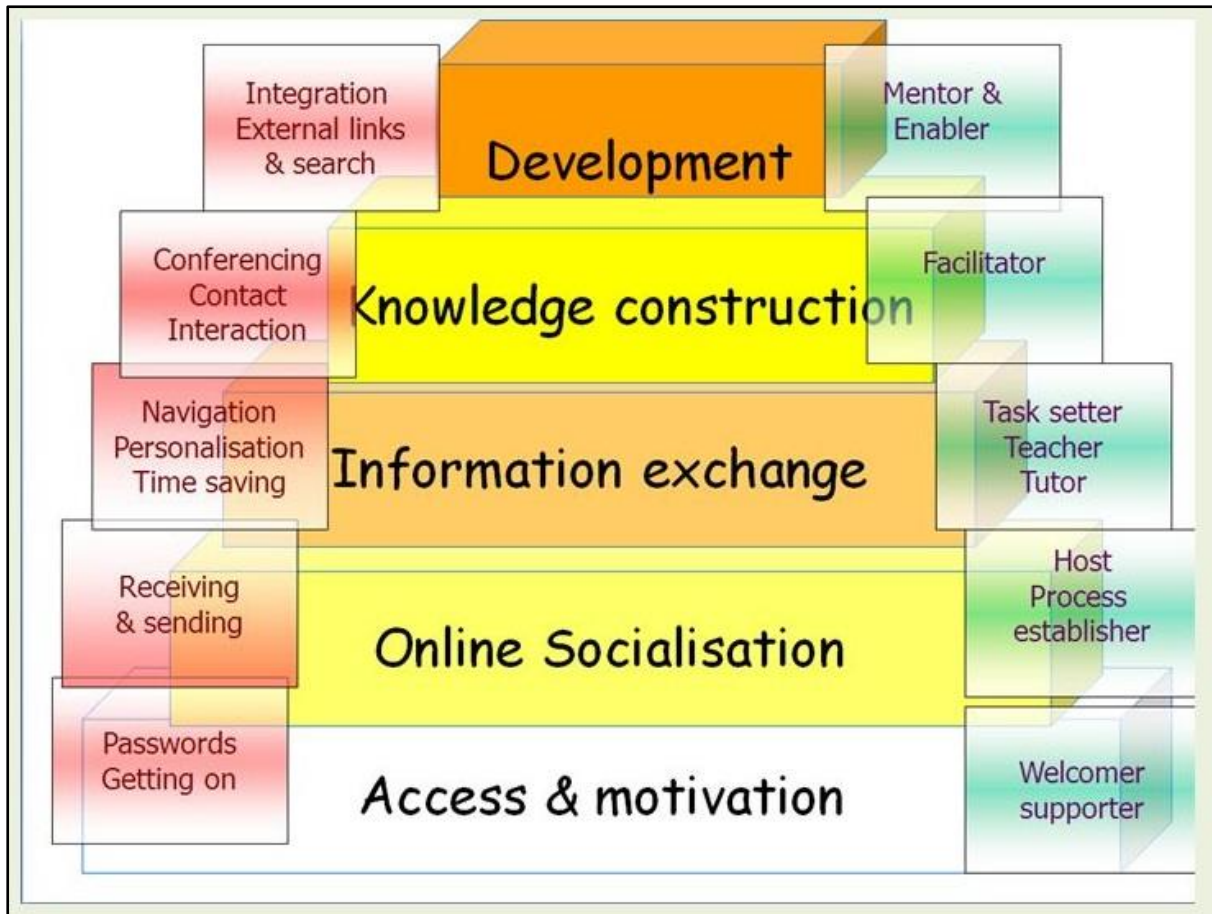


Figure 2 Salmon 5-stage model of e-learning (2000)

The above graphic represents the main ideas of scaling activities to support learning groups towards greater interaction by increased course-related tasks. It includes key elements of socialisation and individual identity, with tasks becoming more complex as learners' actions and understanding of technical functions become more sophisticated. The notion is that teachers support is gradually withdrawn and replaced by community interaction.

In the model the teacher's role requires high levels of moderation, referring students to resources and organising suitable activities to help participants construct content for themselves, as an asset of working online. Laurillard *et al* (2000) similarly describes teachers creating a narrative path for students by mediating instruction and activity towards objectives through 'sub-goals' (targets). In those cases the teacher's role is very much based around the syllabus. English is a content-heavy syllabus of declarative knowledge (i.e. the names and definitions of language techniques), but is combined with application, and the procedural knowledge of how students use language is more challenging, requiring sustained communication between agent's

content creation and feedback, seemingly absent from Salmon's model, which presents platforms more as a resources depository, than discourse aimed at mastery.

Low confidence of teachers is cited as a barrier to learning technology competence (Morris, 2010, Ertmer, 2005), as stated in FELTAG (2014), where unstable knowledge of technology has contributed to unfulfilled expectations of use. Professional teaching competence associated with Web 2.0 social software is identified by Nikolov (2007) as necessary at qualification level in order for it to realise the dynamic pedagogic affordances available. This is echoed by McLoughlin, who stresses that "Web 2.0 tools can support the dimensions of an accomplished teacher by enabling networking practices, information sharing, distributed learning and content creation." (850: 2011). An understanding of affordances of a particular technology will enable more imaginative and effective uses of it by a teacher. The same might be considered for students. For them, membership of communities of practice or inquiry presupposes necessary digital skill sets, both ICT ones and normative ones of attitudes, behavioural actions, and responsibilities. Is this assumption a pre-condition to membership, where a lack of skill sets, and highly refined digital skills associated with social learning, might prevent inclusion. The next section explores an alternate approach to mobility.

3.3.1 Summary

The teacher roles outlined are highly reflective of orchestrating a face-to-face classroom, yet lean heavily into textual-based facilitation with less application of other multimodal communication. An issue is shown with the formation of online communities of inquiry as heavily teacher-directed, which puts less onus on student ownership and activity causing online learning spaces to become rigidly syllabus, task and goal-based. This, presumably, may discourage access to the kinds of low-engaged students described earlier. To foster ownership and autonomy, teachers need a nuanced understanding of pedagogy to augment existing syllabus goals with activities and design features that attract engagement.

With a social network (Edmodo.com) already in place that allows for a Community of Practice to situate within, knowledge construction, with attendant components of interaction and assimilation, is the responsibility of the teacher to "design-in" – represented through functions such as discussion threads or grouped questions. This may undermine 'autonomy', positioning the teacher as central to networks and reasserting traditional hierarchical relationships, but teaching presence is necessary to

scaffold online interaction as purposeful. Paradoxically, while a discrete teacher presence may help a student community construct its social identity, it is also necessary to structure meaningful activity and for visibly connected support and feedback. It may be fair to assume that after initial posts are made, student intrinsic motivation improves, since the expectation in posting is receiving a reply. The challenge for an educator is in invoking participation through design, particularly if mobility is sought. Pedagogical strategies and approaches to trigger interaction and participation are discussed in the next section.

3.4 Blended Learning – theory of instructional design

Online learning eulogizes distance, mobile and distributed actions as a concrete affordance made available by way of trans-located communities mediated by real-time technologies.

As shown in the introductory chapters on FE, Citizen Maths (Coralesce, 2014: 32) is held up as a model of online provision that could support the numbers of learners requiring the re-sit. The risk is of a platform modelled as a general ‘one-size-fits-all’ success being replicated to problem contexts. With the English GCSE syllabus, traditional learning is contextualised to classrooms across a specific unit of time with specific learning outcomes. In terms of this study, ‘online’ is an augmenting layer of provision, not a substitute. Blended learning, as the combination of sporadic, timetabled physical interpersonal meetings (‘traditional’) and various supporting opportunities represented by an online network, support traditional environments with face-to-face activity and mobile features.

It is unclear, however, how mobile access (to resources, experts and with a community) support emotional and motivational factors where behavioural resistance to online achievement become a norm. As an alternative, blended approaches, described as an “organic integration of thoughtfully selected and complementary face-to-face and online approaches and technologies” (Garrison and Vaughan, 2008: 148), complement classroom-based approaches. Driscoll defines blended learning (2002) as:

1. Using varied web-based technology (e.g. live virtual classroom, streaming video, audio, and text) to accomplish goals
2. Using mixed approaches of constructivism, behaviourism, cognitivism for outcomes not necessarily using technologies
3. Combining instructional technology and face-to-face approaches
4. Mixing technologies to working tasks

Various other descriptions of blended learning, are outlined by Oliver and Trigwell (2005), including a close fit for this study (Valiathan, 2002, in Ibid):

- “1. skill-driven learning, which combines self-paced learning with instructor or facilitator support to develop specific knowledge and skills
2. attitude-driven learning, which mixes various events and delivery media to develop specific behaviours; and
3. competency-driven learning, which blends performance support tools with knowledge management resources and mentoring to develop workplace competencies.”

The first notion involves a consideration of the teacher presence as supportive to the interaction; the second pays heed to the behaviour, affective and attitudinal, as already discussed in Chapter 4.5 on Emotional Presence. The third definition fits the FE sector and learner aspiration (vocational and work-based skill sets). Overall, the definition is relevant to the purpose of a Community of Inquiry, with its constituent domain of teacher presence, but focusing on the contextual sector. Blending affords teachers opportunities to circumvent their own and student apprehensions described earlier by introducing technology as experimental by incremental introduction, integrating technologies to embed familiarity for students and ensure grounds for use (norms, occurrences of access) are established, and for confidence, habits and associated skills to develop.

Some teaching and learning experiences and activities at a superficial level (in terms of producing the right level and type of work, meeting targets and deadlines, presenting work for assessment) may be shifted online without friction. For example, learners checking they are ‘right’ can be met with basic assurances remotely, even if

text-based, but these are isolated nuances of a student's experience - what a student needs to do, but not specifically how it is done at a cognitive level. It is also unclear whether those processes of activity are optimal. As is shown in Point 2 above by Driscoll (2002), blending may include multi-faceted pedagogical approaches, for example notification functions as stimulating attention to targets through distributed mobile communications.

'Blending' is instructional design, which assists students to negotiate access to collections of online resources and associated activities, combined with face-to-face context modes that inculcate mobility as a cultural norm of learning. Given a supportive approach to readying teachers for innovative online pedagogical practice, blended learning is a scale towards multimodal literacies and Web 2.0 affordances in both classroom and mobile contexts. Issues surround what pedagogies best support affordances, with the literature review providing explanation of models and frameworks in the next section.

3.4.1 Summary

In summary, blending allows for direct support of emotional and motivation challenges needed by many students in terms of orientation, either by a teacher or learning community group, or by physical structure (classroom, timetable). It may also potentially empower residence to network and stimulate autonomy as a driver of self-determination and capability and autonomy can improve time and physical limitations, which contribute to the research problem. Unfortunately, there is no assurance that online learning, whether distance or blended, promotes critical or higher thinking faculties. For this reason, blended learning is a support mechanism to the teacher, as well as the student. Blending allows for the implementation of processes that arise from digital literacies. The potential for these to reposition learners as more independent, capable and self-determined is explained through a framework in the next section.

3.5 Intrapersonal learning theories

3.5.1 The PAH Continuum

So far, the outline of socio-cultural theory in this thesis has subscribed to a developmental paradigm of learning, in keeping with Vygotsky's (1978) ideas about the nature of learner identity and changes in cognitive behaviour as inseparable from cultural interaction. Aiming to integrate such views into pedagogical practice in Further Education is strained by institutions that are Instrumentalist, of a utilitarian 'means to an end' focus, comprising skills-qualified training.

The PAH (Pedagogy-Andragogy-Heutagogy) Continuum (Luckin *et al*, 2010) aims to extend learning from pedagogical (child-based) applications to a mature, self-determined setting, with identity development central to learners' attitudes to how they approach self-study. Within Heutagogy, notions of capability and competency are implicit that position it close to Behaviourism tenets of changes in behaviour stimulated by input, the behaviour in this case being self-efficacy:

"Competency can be understood as proven ability in acquiring knowledge and skills, while capability is characterised by learner confidence in his or her competency" (Cairns, 2000 in Blaschke, 2012: 59)

The case here is of individuals reordering internal processes by interaction with signs and tools. The below sections outline pedagogical approaches and predicated on 'how to learn' (Hase and Kenyon, 2001), with implications of how these methods may challenge values and assumptions (Argyris and Schon, 1996, in *Ibid*) of conventional educational delivery as more bridging formal models with informal, real world experience.

3.5.2 Andragogy

Taking as assumption that the post-compulsory FE context of the study is a tertiary educational level usually regarded as a route for post-school/pre-university or other training (as already discussed in 1.3 - the FE context), for many candidate students in the sector, FE may be regarded as a threshold before adulthood (this is not to overlook the place of FE as a context for adults also, who form a large demographic of this sector). The significance of this introduction is on the focus in the PAH Continuum on *heutagogy* (Hase and Kenyon, 2001) – a paradigm of learning aimed at enabling individual capability, matched to digital resources as promoting self-determination.

The PAH Continuum comprises Pedagogy–Andragogy–Heutagogy. In broad terms, pedagogy is framed as paradigms of learning for children, while Andragogy is represented as approaches taken by adults. Characteristics of Andragogy (devised by Knowles, 1970 see Figure 4 below) may be employed to help FE students in the mastery of digital tools and associated learning qualities. The concept is not without problems (discussed further below), not the least of which is a requirement of maturity and autonomy, according to Canning’s model (2010, in Blatshke, 2012), shown below) where (as with Salmon’s model, shown in 3.3) instructor input is diminished to promote independence, taken as less necessary with more mature students.

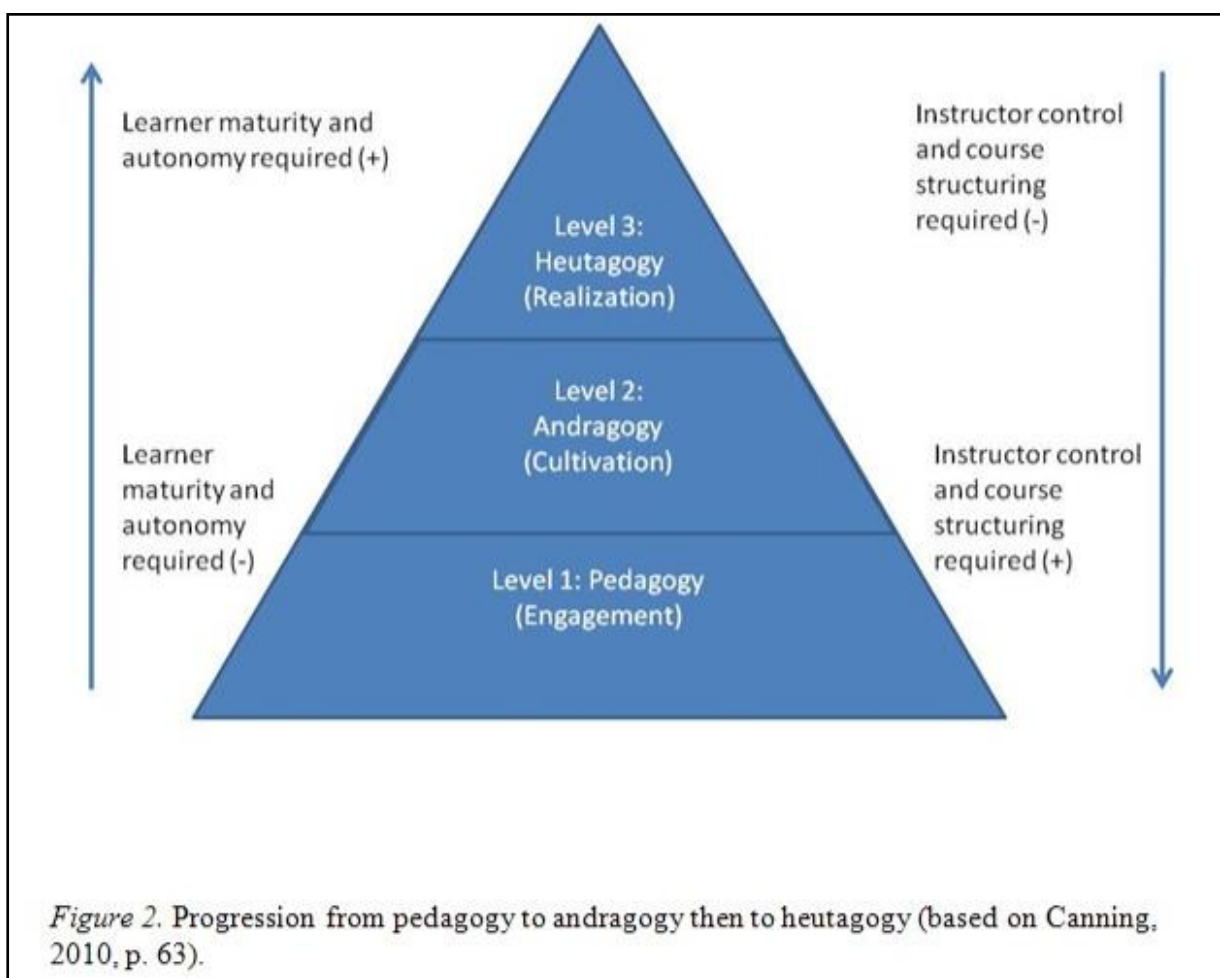


Figure 3 Progressive Autonomy within the PAH Continuum

As shown above, the PAH Continuum sees a change in the dynamic of teacher to one with less control or input. Blaschke suggests that this may result in adults able to draw on their own experience to help guide formal learning, as shown in Table 1 of adult learner (Andragogy) characteristics from Knowles, below.

| | |
|-------------------------|--|
| Self-concept | Adults gradually become self-directed and move away from being dependent on others as young people are. They develop their own personality and clear self-concept of themselves. |
| Experience | Adults accumulate significant and numerous life experiences upon which they are able to draw as a resource for learning, unlike young people who have relatively few experiences to draw upon. |
| Readiness to learn | Adults have a greater inclination to learn by themselves without being directed as young people need to be. This is linked to their emerging social roles in society. |
| Orientation to learning | Adults are orientated towards 'just-in-time' learning rather than 'just-in-case' learning, which characterizes schools. Therefore adults adopt a more pragmatic approach to learning which is focused less on the subject of learning and more on its applications (e.g. problem solving). |
| Motivation to learn | Adults develop an intrinsic motivation to learn in contrast to young people who tend to be motivated by extrinsic factors (e.g. punishments; rules, rewards, etc.) |
| Need to know | Adults need to know why they need to learn something |

Table 1 Knowles (1970) Andragogy categories

While the Andragogical characteristics are a generalised and subjective representation of how adults learn, it cannot be denied that adults bring prior experiences and knowledge that shapes their interpretation of formal learning. In the English syllabus (over, for example, Mathematics), experience may enhance curricula to real world examples and prior knowledge, for example, interpreting poetry texts is enriched by lifeworld. But it's unclear why this is restricted to adults, when younger students' views and experiences are available to draw from. Indeed, adults' life histories, positive and negative, shape internal lifeworld perspectives impacting on the reflection processes to internalise and assimilate curriculum objectives; when shared, these may be

complementary to a community-communicative model of peer-exchange harnessing experience to construct discourse through peer-support to objectives. There are overlaps between these characteristics and the LTCA theory (discussed in 7.4.1), which supports analysis of discourse among adults in this study.

Knowles' framework helps show how some individual adults can be more self-determined learning in a formal context, with 'just-in-time' approaches particularly fitting, where learners access material on an as-and-when basis. This is especially suited where learning content is communicated as more personally meaningful and where it may reflect the values outlined above or allow for personal *lifeworld* knowledge to be integrated into a syllabus. Assimilating *lifeworld* as complementary to formal learning appears to be in keeping with research in FE college courses that looked at literacy, concluding "success in their courses may depend on students being enabled to take ownership of these literary practices in the same way as they engage with the literary practices in the contexts of rest of their lives" (Satchwell and Ivanic, (2009: 89), in Edwards *et al*, 2009). Drawing on life experience appears to encourage confidence in mature students, who value their status in other domains beyond those defined as learner, reflecting levels of emotional self-esteem that contribute to determination and motivation, particularly when faced with uncertainty in returning or transitions into education (Askham, 2008; Salisbury and Jephcote (2008). As a model of 'adult learning', the validation of experience in *Andragogy* could provide a reform of FE or tertiary level as a community model where students are regarded as 'emergent adults' needing transition frameworks for mature learning experiences. Such a recommendation is supported in recent research by Beaumont *et al* (2016) through scaffolded design to self-regulation and dialogic feedback (i.e. continually maintained between student and teacher as discursive) to harmonise transition between school and higher education. This approach involves high levels of feedback guiding learners to self-regulation through

1. Discussion of criteria for assessment
2. Model Answers provided
3. Drafted assignments
4. In-task feedback
5. Assignment submitted
6. Performance feedback

7. Review feedback

The approach places emphasis on high-levels of dialogue, in order to develop student autonomy found in Higher Education. Phased to this study, the importance would be on the use of a network to provide target-setting towards assignments and feedback through continued drafts and exemplar models put online to support mastering process approaches for students. If students habitually check online communications, individual engagement becomes purposeful within networks and educators can exploit community affordances, such as peer-support.

Knowles' (1970) framework, based on unclear inquiry methods, is intuitive. As an educator himself, his lifeworld is a differentiated habitus – including background schooling experiences and learning difficulties – to how others perceive learning capabilities. Whether Andragogy is predicated on age or readiness and will to achieve is unclear, as the theory has little empirical foundation. Andragogical qualities such as “a problem solving approach to learning, self-directedness in how to learn, intrinsic learner motivation, and incorporation of the learner experience” (in Blaschke, 2012: 58) fit with a ‘process paradigm’ of education, more fitting with vocational training with a focus on acquired and mastering skills leading to personalised outcomes, but it is uncertain whether school-leavers are equipped with the different approach proposed. Inculcating ‘experience’ would potentially see raised responsibility by students to studying, with increased independence and motivation presumably raising attainment. If readiness to studentship through engagement is accomplished with low-motivation students, then more autonomous affordances of Web 2.0 (explained in this section through Heutagogy) can be realised too.

Andragogy outlines hypothetical ways that adults perceive learning, but transferred to younger students may be problematic, unless reflection, as underscoring all experiential processes, is actively designed into learning. The potential tendency for adults to have intrinsic motivation or ‘just-in-time’ episodes of learning is further rationalisation of networks as assistive, providing as it does ‘anytime’ access to resources, a teacher and community. This fits with a model of student ownership of learning presented by Conley and French (2014), who argue that encouraging aspects like increased motivation, self-efficacy and self-direction may impact on achievement

gaps, though it is unclear whether such models rely on the maturity and pre-existing motivation of younger students, or can be cultivated through mobile resources.

Andragogy is a generalised representation of self-determined adults - not necessarily fitting with the re-sit population in this research study, which potentially indicate deeper problems with generalised learning and schooling experiences. However, while an inclination may be taken by colleges to fall back to transmission of content knowledge with such students, such school-based methods would be corrosive to Further Education as innovative in provision and as supportive to those failing in schools. Alternative approaches are very much needed that work through different channels. Much definition is given to self-determined learning by Knowles (1970) as 'arranged' – the ability to use initiative, to be independent, to self-acknowledge needs, source material to support goals, and to organise strategies. These features may be concordant with the application of a situated learning space, but should not be taken as given; indeed, the adult in an FE context may need as much (or less) orientation, support and leading as a school leaver given the common unfamiliarity with systems and processes in and of education (as shown in 2.7).

The concept of Andragogy, contains further flaws. Congruent to the era in which it was devised, it seems outdated as a linear means of viewing learning processes. It is, for example, at odds in some respects to SLT (Lave and Wenger, 1991), where elements of learning are context-dependent, rather than reliant on the character of the individual and where, in SLT, it is ceded that learning can occur almost by accident. Where Andragogy shows the characteristics of adult learners, what is omitted is any reference to emotional dissonance, as if the routes of adult learners were seamless and without obstacles. While self-directed learning, resonant within Knowles definition of Andragogy, appears effortless and tension-free, adults' experiences of learning in reality are often fraught with negative past experiences of education, and may be turbulent and far from fluid. Kettlewell *et al*, (2012), highlights numerous incidence of the difficulty of those returning to education and the importance therein of supportive relationship-based environments and social presence – seemingly at odds with that presented by Knowles. It is a risk to assume that adults within the context of this research problem can learn without friction or that movement towards autonomy is an unproblematic experience. Guidance for adults may remain as intrinsic as for struggling school-leaver students entering FE. This is significant given the overall

context, especially cuts to adult skills budgets (estimated in 2015/16 to be 24% meaning larger class sizes, or fewer classes and more online learning (FE Week, 2015)

3.5.3 Heutagogy

The PAH continuum moves from pedagogy and andragogy to heutagogy, which is suggested as a framework given the tools, technologies and online habits afforded learners in the digital era, towards student self-determination. It presupposes self-determination, though this may well be predicated on intrinsic motivation. With crossovers to Social Learning Theory (outlined in 3.6) a focus is on *self-efficacy* as knowing how to learn. Descriptions of the capable learner include values such as reflection, environment-scanning, valuing experience and interaction: “it goes from being problem solving by enabling proactivity” (Hase and Kenyon, 2001). Again, these may not be qualities we may associate with the learner of this research problem, but are certainly to be endorsed. With a focus on capability and self-determination, heutagogy has been widely attributed as useful to distance learning or higher education. Can it, then, be adapted to the transitional stages of FE and applied for mobile or blended opportunities?

While heutagogy sits at the highest end of the scale, it is not necessarily contingent on linear progression from Andragogy to realise it, though it is customarily framed as a Higher Educational approach. Heutagogy has extended to a level at which students can move further into stages of self-determined learning beyond Andragogy. Hase and Kenyon state the differences as:

“...the potential to learn from a novel experience as a matter of course and recognise(s) that opportunity to reflect on what has happened and see how it challenges, disconfirms or supports existing values and assumptions reflection, environmental scanning... and valuing experience and interaction with others.” (2001: 3).

These categories require qualities of human agency in the learning process that are assumed as inherent, but the cultural manifestation of formal education positions learning less as an insular, internal set of personalised experiences and more as a context-based activity with structured drivers, such as a teacher, institution and curriculum, which qualifies the agent by assessment of other factors, such as the

“means to measure attainment” (2001: 4 *ibid*). This is problematic: an academic culture that has become predicated on competition, standard measurable data and targeted performance and results-determined institutional assessment may be said to prohibit personalised learning experiences, which may discourage inclinations to lifelong learning, ownership and self-determination (Askham, (2008). It could be this cultural pre-disposition that may lead to a sense of dependency determined by these factors, diminishing many learners from the capabilities necessary to heutagogy as they become subject to routines that work for teachers to achieve results, rather than learners to develop. Cultural disruption may be required, even in an era where technology is said to help realise the precepts of social-constructivism.

As indicated, heutagogy is characteristic of autonomy facilitated by mobile channels. Cochrane (2014) proposes teachers provide ecologies of digital resources to guide students through processes of determining their own learning practices and allow them control and choice of the tools needed to reach outcomes. Using Edmodo as a central locus, other systems (Wikis, search engines, personal blogs, RSS FEEDS, apps like Explain Everything, etc) can be clustered to practice around it to promote digital literacy capability.

As reflection is an implicit part of the transformative processes inherent to self-direction (Schön, 1983, in Blaschke, 2012), learning journals are advocated by Blaschke. This is another personal observation (drawn from Schön’s own personal reflection of his experiences as a researcher practising self-education), which can be applied to the context of re-sitting students, particularly with curricula fixed on short-term gains of course and success, rather than sustained personalized reflection of experiences as imbuing lifelong learning. At the level of the research problem, with a focus on content and syllabus as terminal, Edmodo (or social networks) serve a purpose as potentially driving engagement and independence as a static domain for joining-up lessons. This may indicate its propensity for enabling reinforcement (of knowledge acquisition as content dependent) over reflection – two very different qualities, though not indistinct. ‘Reflection’ implies continual progress, founded on informal lifelong practice. Vocational students, however, perceive ‘learning’ as formally contextual to qualifying for trades that arrest them in a ‘churn’ of circular movement between social agencies of employment, education and welfare (Atkins, 2016). For reflection to be reconfigured as mastery of skills in learning, a perspective of

development to personal opportunities needs to be promoted, whereby reflection leads to changed patterns in behaviour choices, rather than reinforcement of hierarchical power structures. If self-determination empowers decision-making, it must promote a better model than the existing case which Atkins presented.

Social networks, dynamic in content, open to use anytime, omnipresent (as mobile), allow, even arbitrarily, for reflection: depending entirely on how any user comes to inhabit them, which is where the teacher becomes implicit to methods of self-determined agency. A teacher may post a question following a class to check comprehension (reinforcement), or may post a question on whether a process of reaching an outcome has been successful (reflection). A key concept of heutagogy is double-loop learning (Argyris and Schön, 1996) framed as:

- Initial beliefs, assumptions and values
- A learning problem
- Actions taken to address a problem
- Evaluation of outcomes, and a re-examination of
- Initial beliefs and actions

Double-loop learning requires critical reflection on strategies to achieve goals; as non-linear, it requires relation to a context for purpose. Networks may facilitate context as an environment of inquiry, though where the teacher presence is too amplified the risk is that self-determination becomes compromised. The teacher's role may be configured with double-loop learning by placing emphasis on the provision and review of feedback, suggested by Beaumont *et al* (2016) in the preceding chapter, so that focus is made on process, over product.

3.5.4 Summary

Some means have been presented here as a rationale of how networks may potentially enable scaffolded support platform towards capabilities. Knowles' original outline of Andragogy may fit better with experiences for HE students than those often showing low motivation and low aspirations when re-sitting English, which might make a successful community of practice difficult to engineer. In review, the essence of heutagogy is highly appropriate to ideas prevalent in FELTAG (autonomy, digital literacy, capability) and social-constructivism (as learner centred, meaning-making with an emphasis on collaboration and communication) and the research problem

(promoting engagement through communities). Questions surround whether self-determination is an advanced skill state for high-achievers, less fitting for this study's population. The notion of capability may be a foundation for heutagogical approaches, rather than an outcome of practice. Importantly, such approaches, developed through a community of practice model, are not proposed as an absence of a teacher, but require a teacher's role to be reconfigured to help organise reflection and provide supported guidance for individuals.

The next section returns to the interpersonal aspects of community, theorising that social modelling can be a powerful element arising from affordances in the public visibility of social networks. This is set out to demonstrate how the internalised, personal development outlined above may become manifest through interaction.

3.6. Interpersonal learning theories – Bandura Social Learning Theory

Knowledge construction is based on inquiry – asking questions, processes of discovery, reflection on prior knowledge, problem-solving, sharing resources, offering responses – framed in situated learning space as sustained discussion. A network's activity, drawing from previous knowledge as a course syllabus undertaken in school, prompts sustained reflection in a community which is social in nature and may enable members to mirror behaviours made visible: "the moulding of oneself to environmental contours" (Kolb, 1984: 23). In a behavioural sense, this flat-lining of behaviours and actions within the network becomes normative: posting questions and responses, resources and work for feedback. This is an aspiration of constructing a community of the population study, akin to Bandura, who suggests observation of others is a key part of learning in a behaviourist sense. Engagement may become reinforced by positive role models, if Bandura's view is accepted that teenager's social media actions encode imitations of behaviours observed. As cited earlier, Bandura's Social Learning Theory (1977) stressed the significance of environmental conditions for interaction to promote 'self-efficacy' – a vital constituent of an individual's ability to learn, comprising confidence in an ability to achieve. A high sense of self-efficacy procures an accelerated belief in positive outcomes to achieve and be capable of achieving. If the context in which activity takes place is positive and responsive, with reinforcement, encouragement and support, then the aptitude for learning effectively may improve – given a cohesive social presence. Low self-esteem, negativity and

emotional disclosures from students require intervention from an educator to construct a learning environment ensuring support (Weis, 2000 in Cleveland-Innes and Campbell, 2012: 286).

Where negative expressions are visible they can reproduce negative behaviour traits, while Bandura's theory suggests the opposite is also possible. An open network can induce positive learning behaviour and disciplinary habits where others actions can be observed, for example receiving a teacher's feedback from a post may signal others to be proactive if they recognise this as a mutual need. The Behaviourist psychology behind social imitation is vulnerable to critique, assuming, for example, that there are no inherent biological differences between subjects which would prompt different responses to stimuli. The main significance raised by this theory is that the community itself performs a mediating function in a visible network and that communicative actions (as posts) may stimulate responses as signifiers of human behaviour. Where actions stimulate reactions (for example, a question asked generates an answer or prolonged discussion), momentum in activity may be enculturated, promoting sustained goal-orientated engagement, though what predictive law can govern whether a discussion thread will succeed? An assumption is made here that the normal disposition of an individual is active, rather than apathetic, and this demographic may be reactive, rather than proactive, meaning that the teacher needs to be proactive themselves in actions to generate response – just as in a classroom. There is no surety that the normal characteristics of individuals will be transformed online from offline behaviours. This is raised in advance of analysis outlined in Chapter 7, since it may be assumed that students in a network are cognizant of notifications and of others action, particularly if blended practice is implemented to classrooms, which promotes participation leading to the choice, described earlier, of agency-interaction and manifestations of self-responsibility.

The challenge is to channel group (social) behaviour into an individual aptitude for self-efficacy, potentially by response to inquiry from student and setting expectations of gains to be made from the response independently. Further targets may also form part of this repertoire of strategies, or scaffolded objects met through other technology independent of the general platform, which might be used as a mediating communication point of orientation for continual negotiation of targets.

With a low-motivated research population such as those re-sitting schools qualifications, the risk in online provision is of students working in a void. As described above, Social Learning Theory helps teachers understand how behaviour modelling can affect levels of participation leading to teachers' developing strategies to moderate a network appropriately. If students are to be more autonomous, as FELTAG proposals make, it is critical that the online contexts are moulded to visible qualities of studentship.

3.7 Chapter Summary

This chapter has outlined learning theories and models relevant to constructing a framework that may emerge from the data analysis. It showed how specific aspects of adults' approaches to learning may be scaled to curriculum reform to incorporate a mature use of digital skill sets that supports learning objects, such as *lifeworld* experience and self-motivation, which support capability and autonomy as the basis of Heutagogy. These twin notions frame the learner as subject to influences from tools which they use and the community they are within. However, while these theories have been applied in strands of research in Higher Education, it's unclear what impact this may have on the demographic of this study. The concept of Situated Learning and Communities of Practice introduced at the beginning of the literature review provides theoretical principles that support the use of the social network in the design process, as well as a lens to view it. The next chapter presents a model of Activity Theory which enables a reading of a network, before looking at a range of analytical approaches of e-learning communication previously used. This is done to show how similar studies evaluate interaction and what may be applicable or not to the research design outlined in the subsequent chapter. Approaches are determined by Research Questions, so these are re-introduced based on the discussion made in this literature review.

Chapter 4 Informing the Research Design

4.0. Organisation of the Chapter

This chapter begins with a discussion of Activity Theory, before introducing a tangible model for gauging activity within networks and how the model informs research design. Outlines of similar research reports are presented, focusing on how different methods shaped the approaches taken in the Research Design. It also serves as rationale for the use of social networks as representative of plausible data for qualitative research. At its conclusion, the main extracts from each report is summarised in terms of their influence on the methods used here. Fuller explanation of methods used follows in Chapters 5 and 6.

4.1 Activity Theory - between social and personal

A review of literature located Activity Theory (AT) as an overarching theory which positions technology as a tool. Having evolved expansively as a theory, a resulting operationalisation (Mwanza, 2001) for praxis is explained in the ensuing section, which helped position the researcher's view of technology's role as integral to Methods (Chapter 5). This is done to show the reader the place of technology in relation to its functionality in human processes and how practice is communicated through the wider lens of Activity Theory.

As Nardi (1996, in Engeström, 2001) has shown, AT arises as a framework that helps explain links between consciousness and practicality (activity). It is described here as it is perceived as useful in its focus on the practical and conceptual, particularly:

- the interplay of constituents at work when a tool (whether a pen, computer or even words themselves) is engaged to mediate learning activity
- understanding human factors involved in the conceptual and actual design and implementation of technology (AT is used here to study the interaction between different agents in a CoP mediated by the online network)
- recognising the role of the artefact or tool when analysing the contribution of technology to specific learning scenarios, i.e. the contributing affordances technology provides to meeting an outcome

- in aiming to ensure that ecological validity is met for research in those areas, AT can serve as a framework for further research, drawing focus to how the constituent elements continue to develop as emerging phenomena.

Given this is a theory based on the role that tools play in human processes, from the outset its historical value placed by those who promote it on the contribution of technology must be recognised. Indeed, it has at its roots in the work of Vygotsky in analysing philosophies of activity made by Marx and Engels. This took the form of objective, ecological and socio-cultural perspectives and helps position perspectives of technology, as Jenkins *et al* (2010: 8) state: “The tools available to a culture matter, but what the culture chooses to do with those tools matter more.”

Today, the ubiquity of technology such as mobile phones means a convergence eclipses everyday activity; Activity Theory assists in exposing behaviour, habits and relationships to tools. From this viewpoint, AT may be taken as an epistemology in perceiving the communicative interactions surrounding members of Edmodo.

Early formations of AT given to Vygotsky suggest the close interplay between different factors: the subject (user), the object (what they wish to do or achieve; the purpose or intent) and the mediated artefact (the tool at their disposal, which could equally be a synthetic technology (pen, book, keyboard) or equally a more natural instrument - such as speech, paralinguistic features – or the activity itself – e.g. writing). Here, the idea of *appropriation* is important to consider, demonstrating the utility and will with which a subject takes a sense of ownership to, prior knowledge of, or motivation to using the tool. The more versatile the tool, the more utilities may be extended to it, from which ‘multimodality’ may emerge as reflective of how students appropriate networks.

Engeström (1987) developed Vygotsky’s original model to integrate more critical factors in this relationship, including context and placing significance on how social elements (community) combine to create meaning (as outcome) shown in the Second Generation activity theory model below.

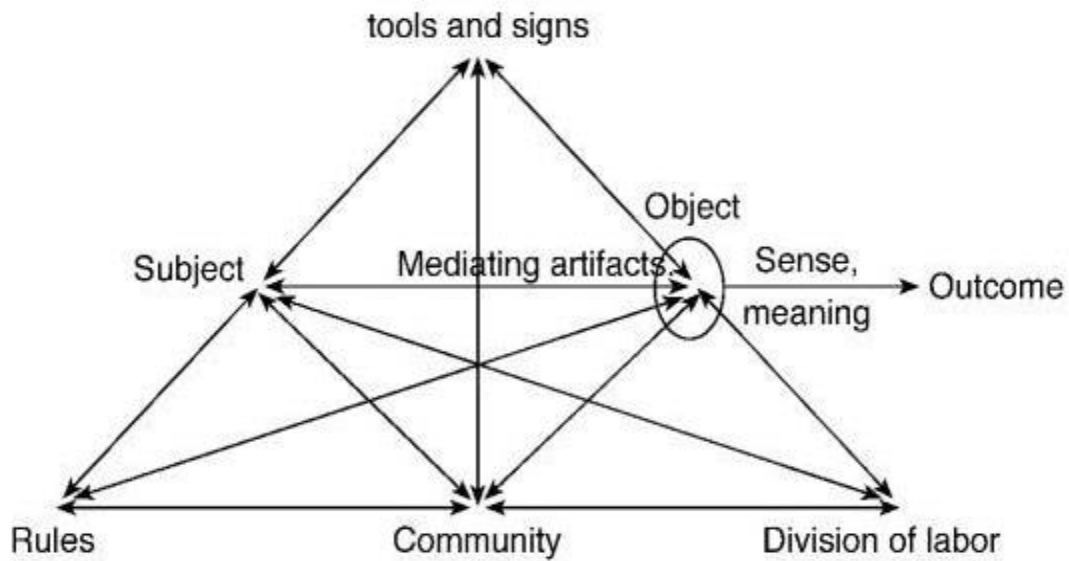


Figure 4 Engeström's Second Generation Activity Theory

The figure is included to show how it may be adapted to different means and methods: in a situated learning CoP, the subject is the learner. Their interaction is dependent on compliance with rules, or norms (participation in learning activities). The object (problem) is an endeavour to pass through the course with success, which would need to filter into varying separate objects in order to retain focus on each arising problem (unit or module; assessment on the course). Leont'ev (1978, in Mwanza and Engeström, 2003) has suggested that activity is multifaceted with constituents of separate actions and operations not entirely based in linear sequence, reflecting the activity of the space (writing and reading posts, asking and answering, sharing) that lead to outcomes. These actions and operations change given various conditions: the need to catch-up with missing work, for example, might require missing other operations resulting in problems arising. Kuutti (1996, in Mwanza, 2001) shows that hosting multiple problems, or not making a clear definition of the problem being processed through AT may result in a failed mechanism. A syllabus is a continually shifting set of objects (problems) and Edmodo is only a partial terrain for AT. The over-arching problem present may, for example, be one unit of the overall course, or a segment of that unit – for instance, a problem engagement with a set-text, while another problem may be the assessment of knowledge of that text; over-arching problems, as identified, are general engagement. Also, as the student population in this study progress, their focus may be the summative assessment examination. To

each separate problem, the social network is an artefact for problem-solving to mediate an object. Problems, rather than being individual set challenges, arise as continually shifting ones.

Kuutti (*Ibid*) has stated that activity – in the form of operations – become routine, so that conscious acts become unconscious. As such, in dealing with an immediate problem confronting them, the student reverts to the network as a tool to mediate that problem, drawn from a subject's knowledge that it has performed a function in an outcome before, i.e. accessing help. Where educators feel processes become automated, uses of tools must be reinvigorated in innovative ways to prevent activity from hitting a plateau, or of students becoming disillusioned with a resource that further outcomes may be invested in. The table below is an interpretation of ways in which a network can hypothetically be used to fit different uses in the AT model. This is presented to show how a teacher may scale-up activity and adapt what is a fairly plain system based around a wall of communication to further objects, harnessing extra affordances.

Engeström (1999) identifies five principles of AT: a brief precis of the salient points is shown below (column one); if these hold, they can be applied to the use of the interface in the study (as shown in column two). Column two is a perspective of pedagogical affordances mediated by Edmodo. Affordances are not functions, as such, "There are other important ingredients required including the imagination and creativity of the individual user as they conceptualise problems or issues in their own environment that the particular tool might facilitate or help solve" (Burden and Atkinson (2008: 122). In this table, column two does not distinguish between attributes both as abstract processes and actual features of the site, as in keeping with Activity Theory, an holistic view of Edmodo's capabilities is sought here to determine its value from the outset.

| | |
|---|---|
| <p>5 Principles of Activity Systems (Engeström, 1999)</p> | <p>Link to:</p> <p>1) potential opportunities for Edmodo activity and</p> <p>2) objective of community</p> <p>3) objective of teacher</p> |
| <p>1. “A collective, artifact-mediated and object-oriented activity system is taken as the prime unit of analysis. Activity systems realise and reproduce themselves by generating actions and operations.”</p> | <ul style="list-style-type: none"> • Ecology of resources (1, 2) • Multimodality - potential to use platform to integrate with other technology systems (apps, softwares, hyperlinks); multiple-literacy forms (video, image) (1, 2) • Raised engagement; inclusivity; participation (2, 3) • Momentum of use by users (3) • Learning analytics (1, 3) |
| <p>2. “An activity system is always a community of multiple points of view, traditions and interest.”</p> | <ul style="list-style-type: none"> • Rules of use (2, 3) • User-generated content; discussion threads resources and links posted by all members (1, 2, 3) • Knowledge construction (2, 3) • Informal learning by student encouraged to be expressed in the network (2) • Student empowerment – personal voice, authorship (1, 2) |
| <p>3. “Activity systems take shape and get transformed over lengthy periods of time.”</p> | <ul style="list-style-type: none"> • Portfolio and archiving of content (1, 2, 3) • Personalisation and ownership of network (2) • Mobile learning; remote access (1, 2, 3) • Momentum of use improves |

| | |
|---|--|
| | <p>confidence and engagement (2, 3)</p> <ul style="list-style-type: none"> • Designating roles to learners in shaping the network (division of labour) (3) • Introduction of external agents to network (e.g. experts in a field as guests) (1, 2, 3) |
| <p>4. “Contradictions as sources of change and development...accumulating structural tensions within and between activity systems. Such contradictions generate disturbances and conflicts, but also innovate attempts to change the activity.”*</p> | <ul style="list-style-type: none"> • Change in community dynamics (2) • Ownership of network (2) • Enhanced communication (1, 2, 3) • Relationships between community members mediated by use of platform (2) • Knowledge Construction (2) • Curatorship (1, 2) • Problem-solving (2) |
| <p>5. “Expansive Transformations in activity systems. As the contradictions of an activity system are aggravated, some individual participants begin to question and deviate from its established norms. In some cases, this escalates into collaborative envisioning and a deliberate collective change effort.”</p> | <ul style="list-style-type: none"> • Curatorship: future directions, personalization and ownership (1, 2) • Autonomy; self-determined community; community collaboration (2) • Knowledge construction (2) • Learner centrality (2, 3) • How can the Community of Inquiry and network be further adapted and improved? (2, 3) • Design-Based Research (including multiple partners), i.e. how can the space be developed and used further (1, 2, 3) |

Table 2 Principles of Activity Theory mapped to opportunity uses in this study

With regards principle 4, it should be made clear that a 'contradiction' is explained as different to problems and conflict and are features of changes in systems, such as when a new element is introduced. To illustrate, an example may be when an institution chooses to implement a new Virtual Learning Environment that requires a different means of division of labour. Attendance of students may formerly have been the responsibility of a timetabling administration department, but an allowance of the new system then becomes a role of a personal tutor in order to track individual progress of students.

The above brief application of these principles to the use of Edmodo shows interesting similarities to the presence of factors already discussed in a Community of Inquiry (Garrison, Anderson and Archer, 2000), with the overlap between social elements, the teaching presence and cognitive objects potentially realised, with the scale of use increasing as knowledge of handling of the tool improved. In essence, this is how the AT serves educational instructors: a progressive understanding of use, with objects as the focus. Although Engeström's 'Third Generation' model focuses on joint activity, it may be pertinent to complement the Col areas with 'personal identity presence'. There is scope then to consider an individual activity and object in AT (and in terms of the platform being used in this study) for example with the addition of 'portfolio' features that may help fit informal learning processes with institutional practice, crossing boundaries defined as a tension - 'digital dissonance' - by Clark *et al* (2009). In this sense, AT holds separate functions for the teacher, as to the learner, and can be adapted for each utility.

4.2 Operationalising Activity Theory for Praxis

Mwanza (2001) has adapted the principles of AT to assist with operationalising e-learning practice in a practical way from the teacher or institution's perspective, as shown and explained below:

TABLE 1
AODM's Eight-Step-Model (Mwanza, 2002)

| The Eight-Step-Model | | |
|----------------------|----------------------|--|
| Identify the: - | | Question to Ask |
| Step 1 | Activity of interest | What sort of activity am I interested in? |
| Step 2 | Object-ive | Why is the activity taking place? |
| Step 3 | Subjects | Who is involved in carrying out this activity? |
| Step 4 | Tools | By what means are the subjects performing this activity? |
| Step 5 | Rules & Regulations | Are there any cultural norms, rules or regulations governing the performance of this activity? |
| Step 6 | Division of labour | Who is responsible for what, when carrying out this activity and how are the roles organised? |
| Step 7 | Community | What is the environment in which activity is carried out? |
| Step 8 | Outcome | What is the desired Outcome from carrying out this activity? |

Table 3 Mwanza's 8-step model

The model is a simplified means of assessing activity within a system and was devised by Mwanza to assist with data collection (specifically shaping interview questions) in research projects informed by AT. This is an approach that helps with consideration of methods used as described in the research design chapter, paying particular attention in the semi-structured interviews to:

- Community participation between members towards outcomes (behaviours, support and assistance)
- What role (if any) Edmodo had for those outcomes
- How subjects felt Edmodo contributed to processes towards learning objects

Activity Theory focuses on relationships that factor towards outcomes with an attempt at its core to engage all voices ("Principle 2"), which fits with social-constructivism, where learners' activities are central to educational design. A pragmatic model is needed for a focus on individual agency ("Designating roles to learners in shaping the network (division of labour) – Principles 2 and 3) within community interplay. Salmon's 5-Step (2000) model is one option, which segments and characterises different stages of interaction from inception to realisation of an optimum learner experience. Though dated, it is a practical and operational design of activity and designation of

responsibilities, particularly if used in conjunction with AT to target what utility the technology provides. For example, we may align the principle of designating roles with a similar stage in the 5-step model where roles may be accorded to provide summaries of discussion threads in online contexts. This coupling may be of further use to scale online spaces as a plenary tool to assess performance of individual actors in an e-learning community; where AT recognises the transformation of contexts, we may “support individual risk” (Salmon, Stage 5 Development), through community ownership of a tool, for example by students’ curating (Potter and Banaji, 2012) resources.

Sharples *et al* (2007) used AT to develop a framework for analysing mobile learning that distinguishes two layers of activity: the semiotic, whereby learner’s “object orientated actions are mediated by cultural tools and signs” (2007: 1), with the second layer representing engagement with technology as an “interactive agent in the process of coming to know” (*Ibid*). The first of these is interpreted by application of each constituent of the AT model, so that the semiotics of the subject means the learner; the semiotics of the object equates to the knowledge and skills a learner brings to tasks; the semiotics of the tool means the learning space; the semiotics of the context is a community. The technological layer describes affordances, i.e. a system where communication takes place and mediates agreement, recall and reflection (2007: 7). Therefore it is necessary when using AT to look at Edmodo in two respects: the types of communication taking place and the function of the technology in this relationship. This renders the analysis of Edmodo activity as two-fold:

- Analysis of language and communication as part of the learning process, for which a theoretical framework is needed
- Analysis of what affordances the technology in itself enables

While reports like FELTAG are technologically determinist by nature, AT adversely, in light of its focus on tools, is not, but draws attention to the interplay and interdependence of varying agents. Thus, though AT seems determinist, it forms part of Engeström’s (1987) Theory of Expansive learning, which sees

- Content and outcomes in learning as forms of activity arising from artefacts in processes of dealing with problems or real projects

- Learning as motivated by developmental needs in human practice and institutions, and questioning existing practices
- Learning as happening through cycles where new objects and motives are created and implemented to stimulate further practice.

Holistically taken, a tool's significance (in relation to the other elements, like object and subject) is a detail in the larger story of activity. Kuutti, however, (1996, in Mwanza, 2001) identifies a reciprocal process he labels 'internalisation' whereby subjects using particular tools come to transform objects, while the object comes to transform the subject. As such, and explained earlier, Vygotsky regarded anything as a tool that triggers recall to reach an object, yet where action is based on the tool it's assumed that it helps cultivate a change in the subject. This is cited here to suggest how technology may affect and determine habits and behaviours. In essence, AT suggests that technology has more influence than just as a vehicle to deliver instruction and may even impact in transforming individuals' approaches and actions in respect of their learning. If plausible, then embedding purposeful pedagogical activities can potentially impact on ownership and management of experiences and affect users' identities.

4.2.1 Summary

A key point from this section is identifying how different elements contribute to experience – the tool, communication, and the learner or community of learners. As the social network in recreational use binds learners to communication and activity, so it may be appropriated to goals with learners. There is potential to assimilate processes that assemble to meet objects and to build learner self-awareness and reflection for learners' knowing better how to learn. This is significant as simultaneously there is emphasis towards metacognition in education cultures - reflected by contemporary learning technologies practice (JISC, Futurelearn) and in motivations of reports like FELTAG to scale autonomy.

4.3 Standard approaches measuring Computer Mediated Communications in online networks

The literature review is an intrinsic part of a methodology, helping to frame themes and identify gaps in knowledge (Morris, 2010). Kim (2008) reviewed existing studies to identify themes or activity present in application contexts to identify advantages and compare to limitations in using blogs. This has been part of the purpose of the literature review (Chapter 2), where affordances (2.5) cited by previous researcher's work on learning technologies have been identified. These formed a category for content analysis of the social network explained in the Methodological Approach chapter (7). Content analysis is the primary form of data analysis used in this study, of which there are some standard means for online communication. Henri (1992) focuses on interaction between members, Gunawardena *et al* (1997), focuses on knowledge construction, and the Community of Inquiry (Rourke *et al*, 2007), focuses on cognitive, social and teaching presence (Anderson *et al*, 2001).

Henri's interactivity framework classifies communications between learners:

1. Implicit messages - members respond to messages without indicating who the message is directed towards
2. Explicit posts - responses to others messages directed at the person to whom the message is intended
3. Independent messages - new ideas posted, not responding to others messages.

This highly focused approach on participant's interpersonal communication was considered unsuitable as interpersonal interaction was not overtly sustained by students, so the categories limit purposes of posting.

Gunawardena *et al*'s (1997) commonly used framework identifies knowledge construction in 5 phases:

1. Sharing and comparing information
2. Discussion over disagreements
3. Negotiation of meaning (made collaboratively)
4. Testing and modification of proposed ideas

5. Agreement statements arising to construct new meaning

As focused on learning statements, it disregards much social discourse that may arise. Learner CMC statements denote highly trained discourse by students, learning by accretion and in changed perspective. With much direct instruction being made in this study's curriculum model by the teacher, it was debatable whether ensuing communication between network members would reflect the higher levels of constructivist discourse identified in the above framework; subsequently, this was disregarded as a primary method of analysis and a more open approach taken to initial coding. Since this study has a focus on affordances and engagement levels, a more nuanced and original analytical approach needed to be taken. Overall, the conventional methods presented tend to presuppose the type of communication that may occur in fixed paradigm expectations of participation or knowledge construction. They also render an open, or initial, coding approach redundant: one where researchers stay open to the data as it arises, so in this research the open coding method was applied to cluster communication posts into categories.

Indicators from open coding prompted a second, closer reading of 'social presence' necessitating a reading of what this constituted. It was after this phase one analysis (2013-2014 study) that the focus of the study became less focused on the construction of knowledge and more to the community presence between learners and of how students use Edmodo for personal objectives. Due to the exploratory nature of identity in personal responses from students, semi-structured interviews complemented the content analysis.

4.4 Similar studies

Greenhow *et al* (2009) used the social network MySpace with mixed method case studies of eleven 17- 19 year old students, identified varyingly as high and low end users of the site from questionnaires arising from previous studies. Pre-interview and pre-content analyses questionnaires were deployed to inform the researchers about participants' demographic backgrounds and recreational social media use in order to segment this information and focus the semi-structured interviews on themes of the research study. The transcript data was analysed according to Corbin and Strauss

(1998), with open-ended and more focused themed coding, which arose from preliminary research of literature. The content analysis followed a protocol devised by Jones *et al* (2008) to ascertain vital statistics disclosed on public MySpace pages. This was made by counting frequency and types of personal, identifying and contact information, the range of technical functions used and the types of blog topics and images posted. This content analysis was triangulated against interviews and 'think-aloud' observations, where participants talk through their use of a space. All methods drilled down to statistical findings on self-presentation by users of their personal identities and means of communication. This study was influential in its segmenting of high-end and low-end users from frequencies of posts. The organising of posts into categories, arising from coding, ascertained differentiated use of the site by the student population for the purposes of aiming to see patterns in types of posts by respective user groups. Taking into account the recreational uses of social media by students as a part of the questioning helps to frame personal familiarity and values of social networks without using a survey.

A report by Vivian *et al* (2014) made a content analysis of Facebook with posts coded as

- Type of activity (for instance, 'post to own wall', or 'post to a group wall')
- Academic or social, or both.

The second of these categories was then coded according to topic, such as exams or assignment deadlines. As a mixed method study (comprising baseline questionnaires and exit interviews), the data was complemented by participant insight, while the handling of the rich, raw data of the network is treated to 'counting' of common codes as frequencies of activity, which served to highlight the increased usage towards the end of terms or deadlines where assessed work was due. Against this method was the narrow definition of content as social or academic, a precept limiting an open analytical approach.

Selwyn (2009) explored Facebook wall posts, focusing on

- constant comparison between users posts
- coding process, following Glaser and Strauss (1999)

Findings showed one code category of disengagement as a discussion framed between students seeking peer-support. Another similar report, Leslie and Murphy (2008), explored uses of blogs with a Col (Rourke *et al*, 2007) content analysis deployed to identify social presence and knowledge construction indicators narrowing a participant population from 309 blog users to 47 for further analysis; from there an application of Gunawardena *et al*'s social construction of knowledge criteria were applied, reducing the larger sample further and complementing with focus group discussions with structured questions, and analysis made from transcripts of "repeated keywords and ideas" (Leslie and Murphy, 2008: 6), with categories made from the results based upon the criteria of 'positive/negative, vague or specific, tone and similarity to other comments. Leslie and Murphy's methods were influential in the primary content analysis as revealing incidence for closer exploration in interview.

Sinnappan and Zutshi (2011, in Seo, 2013) based a Col study of micro-blogging in a case study framed around Twitter, and 'best practice' in terms of use of the platform as stimulating topic-based dialogue. Similarly using the content as data, the researchers drew directly from Twitter as a data source upon which to match indicators of presence from the Col model. Similar to this research project, the use of the Col was a supporting theoretical framework for the design of a learning community, and as analytic tool to read communications and relationship dynamics between students and with teachers. The use of pedagogical theory or models underpins quasi-experimental research studies, shown by Ellis *et al* (2014) in an FE-based study where the researcher acted as 'practitioner researcher' based on classroom intervention activities, triangulated with pluralistic methods (video footage, interviews, questionnaires – with learners and lecturers). Learning assessment was made to 'measure' each experiment. Ellis *et al* used iterative cycles to test and refine their approach, while in the present study separate phases evaluated mobility and blending affordances respectively.

Given the Interpretative paradigm of inquiry as critical realism and experience stated at the outset, the use of questionnaires or surveys as ending in statistics is deemed unsuitable for the purposes here. An emergent framework of analysis was sought that integrated pedagogical design to theoretical framework. The LTCA theory proposed by Warren and Wakefield (2011) (explained in **3.3**) was identified as a suitable theoretical

framework given its accommodation of *lifeworld* expression as reflective of personalised discourse contributing to social learning and its emphasis on communication as contributing to social learning reflective of activities in a network. Research studies by Warren and Wakefield (*Ibid*) and Wakefield *et al* (2011) use LTCA theory to inform design of courses with active communication and content-sharing to augment learning experiences and construct knowledge. In those reports it does not constitute a specific method, but it can be deployed as such in a similar fashion to Guwardena or Henri, by using the set categories to identify types of communication made.

Summary of main methods from other reports

| Report author | Methods adopted (a) | Method rejected (r) |
|----------------------------|--|---|
| Leslie and Murphy (2008) | a = inductive approach looking for repeated keywords to categorise a = content analysis (made before interviews to ascertain social presence) | r = focus group; Gunwardena content analysis of knowledge construction is not a main focus of this study. |
| Vivian <i>et al</i> (2014) | a = content analysis of types of SNS posts a = frequency of codes (as posts counted) a = insights sought from interview | r = interview made as focus group: difficult to explore in depth experience with focus groups r = categorisation based on 'social' or 'academic' posts perceived as limiting |
| Selwyn (2009) | a = content analysis focused on the wall feature of the social | |

| | | |
|-----------------------------|--|---|
| | <p>network</p> <p>a = constant comparison and open coding as researcher based</p> <p>a =selective coding clustered into categories</p> | |
| Churchill (2009) | a = teacher as researcher, setting up a context for exploration using field notes of observations | r = Likert scale questionnaire, seeks statistical findings, not fitting the epistemology taken. |
| Halic et al (2010) | a = use of self-reports of personal technology use | r = Likert scale |
| Sinnappan and Zutshi (2011) | a = use of coding scheme of content analysis based on Community of Inquiry framework | |

Table 4 Analytical methods drawn from content analyses approaches

It is explained in Methods (Chapter 5) that knowledge drawn from this study is based on epistemological methods of Interpretivism (5.4) arising from Constructivism; as such the methods in the right hand of the table can be discounted as a narrowing means of organising data into commonalities pertaining to Positivism. These research methods are discounted as unsuitable.

4.5 Research Questions

The questions that arise at this juncture are made from the literature review and assumptions surrounding affordances of Web 2.0 tools. The closest fit with an Activity Theory perception of social networks is to affordances cited previously by Crook:

- Collaboration (as community)
- Potential for inquiry (as mobility)
- Publication (as inculcating expressive communication)
- Web 2.0 literacies (as multimodality)

It has already been shown that there is a paradox central to mobility as affordance. The opportunity is to inculcate self-efficacy, but confidence and intrinsic-motivation are innate qualities that underscore self-determined capability. Can attitudes be enculturated through community to train such approaches? This is framed with the FELTAG report in mind, in order to identify from the research study aspects of the curriculum which are manoeuvrable to online contexts. For this to become apparent, the affordances of students' uses are important in order to understand design principles for online pedagogy that do not leave students isolated from opportunities to progress. The FELTAG report aspires to highly innovative ideals and goals, with students' best interests central. As this study has progressed, FELTAG proposals have taken shape in colleges throughout the country, but the increasing demographic of re-sitting students in FE and their low-engagement remain an 'elephant in the room' for innovative pedagogical delivery. The concept of engagement is elusive, based on previously discussed characteristics identified (Fredricks *et al*, 2004) as:

- Behavioural, such as participation, attendance and on task behaviour
- Emotional responses, including motivation, comfort and belonging
- Cognitive processes, reflected by a commitment to study through willingness to work, and applied effort in acquiring knowledge and skills.

Transferred online, engagement is a term widely used but elusive and is sought from the content analysis outlined variously in Chapter 5 – 7 and linked to affordances perceived by the researcher and students in interviews. The concept of 'momentum', scaled from engagement as purposeful, was insinuated in Nardi, Schiano and

Gumbrecht (2004, in Leslie and Murphy, 2008) as a readership base to publication within social media. This appears an unexplored phenomenon to explore in order to identify the impact of tools as potentially shaping attitudinal engagement and momentum in actions towards objects.

Therefore, the research questions involved aim to take a critically realist view of technology enhanced learning affordances associated with the demographic in question.

- What do the attitudes and perceptions of users reveal about online networks and communities as supporting engagement among FE re-sit students?
- How do mobile social networks and communities' impact on literacy practices?
- How does the realisation of affordances complement and facilitate understanding of elements of co-operative or community models of engagement?

The thesis now moves into a discussion of the research methods applied to these questions.

Chapter 5 Methods

5.0 Organisation of the chapter

This chapter outlines the use of an Interpretative case study methodology to explore the related research questions, setting out the epistemological and ontological connotations of this paradigm as a rationale. The outline of these in the thesis is presented to show how the personal perspectives of the researcher, as well as his presence in the research study, inform the methods undertaken for data collection and analysis, which then follow in the subsequent sections. Discussion of how these approaches to results are considered rigorous and trustworthy in Interpretative studies.

5.1 Epistemological position of the research design

5.1.1. Positivism

In order to outline the position taken, a brief description of alternative perspectives of knowledge is first shown. In traditional, natural science subjects when research is undertaken, experiments and trials may be undertaken with controlled conditions that set out compiled evidence designed to prove results and ascertain facts that can be discovered. In social sciences, similar approaches may be taken, labelled as 'Positivist'. From this worldview, knowledge is regarded as objective, with relationships among variables sought to show cause and effect. Methods deployed to identify relationships are in conditions that allow for measuring and testing, such as with control groups, or by use of hypotheses (Silverman, 2000). The procedures mainly involve quantitative methods, such as surveys, which aim to represent data in terms of statistics and frequency (Opie, 2004: 8). These aim to discover facts, which can be generalised as laws leading to claims of truth (Newby, 2010: 34). In such approaches, the researcher is an objective and impersonal outsider, observing and recording knowledge and testing theories. As Rosenthal and Rosnow (1991, in Creswell, 2009) explain, establishing cause in natural settings and human participants is fraught with difficulties; as the premise of positivist research, 'cause' between variables is not under investigation in this research study, since – in exploring motivation and

engagement - there can be innumerable variables. Therefore, the associated epistemological perspective of positivism is rejected as unsuitable.

Any researcher will work to their own strengths to conduct research and choose methods as appropriate to the phenomena under investigation. As a language teacher and with textual literacy being the principal data of the social network, qualitative methods were perceived as better placed to explore meanings and experiences by this researcher, as well as supporting the paradigm of inquiry of the researcher. It is also vital to consider the potential consequences of such a study. In the perspective of the researcher, it is understood that subjective experiences presented in the form of the personal life-world of students, can contribute to insights that help educators shape the nature and design of their own learning. To this end, their involvement in the procedures was stated from the outset, which is reflected by their central voice in interviews. The resulting epistemology from such a position has been consistently framed as Interpretivist, that further define the methods usually adopted. The premise of this study closely involves the researcher's position within the participation population using methods such as observation to support analysis of the case study arising from the content analyses. Mixed methods, explained next, contribute to a more thorough understanding of the complex and intricate data that arises from a social network

5.1.2 Mixed Method research

Sometimes perceived as a new way to approach research, mixed methods combine quantitative and qualitative approaches, resulting in methods adherent to those paradigms (e.g. surveys and interviews). Newby outlines frameworks provided by Tashakkori and Teddlie (2003, in Newby, 2010) to show how combined approaches may complement each other. Selected approaches can be taken in parallel and sequentially, may be informed by the research questions, or may suit different levels. It was felt that this approach may be useful with the mass of nearly two years accumulated data, but given the inductive stages of collection and analysis it became difficult to take this position in terms of what was being explored. Similar research studies that deploy statistical measures for empirical inquiry are felt to be reductive and narrow when seeking to explain phenomena and experiences. In clustering codes

and themes arising from analysis, some counting was deployed within this research to evaluate common experiences, but these are lightly drawn upon rather than being a focus of research questions, i.e. it helped after initial coding to cluster the codes and see predominant ones, but the numbers of incidence generally are low and patterns where not found to be apparent. A different approach was taken that supported a content analysis focused purely on language as data.

5.2 Naturalistic Inquiry

In seeking to uncover users' experiences of learning in online spaces, the approaches defined as Positivist above are not seen as exploratory in the ways that communication-based methods support naturalistic inquiry (Lincoln and Guba, 1985) which is a perception of reality in social structures, such as those under investigation here. In these processes, the exploration of emergent structures is sought (Glaser and Strauss, 1998) and explanations given for how and why things occur. The research problem helps to define the methods taken: if little is known of a subject, such as how students congregate as communities and operate in such contexts as online spaces, then *a priori* patterns and hypotheses may not exist to base positivist approaches upon. Epistemology is concerned with what is known (Crotty, 1998) and linked to ontology, whereby reality exists outside the mind and the researcher's task is to focus on individuals and groups to create personal constructs of reality. The adoption of Constructivist approaches is utilised, fitting broadly as an Interpretivist paradigm with the methods selected, a focus on meaning and what is happening within the social network space and a broad interpretation of views of the phenomena of online learning. In section 5.5, a discussion is presented on why Grounded Theory was not adapted as an over-arching approach here, whilst some of its methods were. The next section presents a case for Constructivism as the paradigm taken.

5.3 Social Constructivism and qualitative methods

Qualitative research roundly fits with the epistemological implications of constructivism. This is a term that attracts multiple interpretations, taken variously as an epistemology and theory of how people learn. These are not exclusive, since both are a view of how knowledge is understood. Here, it is used as a means of eliciting and describing people's understanding of the world: an epistemology of what the

researcher considers knowledge to be, how it is reached, and how this fits with the methods chosen in this study.

The view of this researcher on knowledge is reflected in the outline of social constructivism by Kim (2001), who explains assumptions related to knowledge: “knowledge is also a human product and is socially and culturally constructed. Individuals create meaning through their interactions and the environment they live in.” (Kim, 2001: 3). This is taken as knowledge in social sciences, which are different forms of knowledge to those arrived at in natural sciences where different approaches are taken to identify proof or evidence between variables to show cause and effect, which as shown above is not the paradigm adopted.

One understanding of constructivism is that it presupposes that knowledge is conditional to human perception, experience and social interaction with the world. As seen from the Activity Theory section, context is a key to understanding. The positivist stance “that words can be fully defined by their correspondence to objects” (Cunningham and Duffy, 1996: 2) is rejected; instead “the total context dependency of meaning” (Ibid) is implicit to arriving at a point that defines constructivism in terms of an epistemological view: “Thus, rather than seeking ‘truth’ by correspondence to the real world, we seek viability, i.e. explanations that are viable in the world as we understand it.” (Ibid) As such, constructivism can be taken as an alternative to Positivism, where truth and a focus on facts is sought. To social-constructivists knowledge can be a process, as well as product. Its construction is dependent on others, as Shaw explains (2010: 4):

“We each have our own presuppositions, beliefs, predilections and these make up our own horizon of understanding. When we meet another person, if our two horizons overlap...then we will be able to make ourselves understood and in turn understand the other person.”

It is this mediation between agents (‘teachers and students’) involved in situated learning that informs an understanding of experiences of use and shapes the methods taken by this researcher when adopting this paradigm.

The purpose of all the methods used in this study is 'constructivist', since they are communication-based and seek to explain experiences of learning and the inherent meanings to these of the participants. From this perspective, the researcher, as much as the sample population, is intrinsic to findings, as "Researchers recognize that their own backgrounds shape their interpretation, and they position themselves in the research to acknowledge how their interpretation flows from their personal, cultural and historical experiences." (Creswell, 2009: 8) In this sense, the researcher must be reflexive in order to present and assess their assumptions surrounding the phenomenon and these assumptions are taken into account in a reflexive section (5.7), which reminds researchers to be conscious of their positions influencing their research: life history, biases, agenda, etc (Cohen *et al*, 2011).

5.4 Interpretivism

As a research paradigm, Interpretivism is fully in line with the qualitative methods outlined in Chapter 6. Cohen *et al* (Ibid) state that because the nature of social reality is complex, it is best understood when meaning as central to experience is at its core. In Interpretivist studies, the researcher is closer to the research and becomes immersed in varying aspects – the population and the methods of eliciting meaning (such as in interview). Meanings may be varied or multiple, so the Interpretivist researcher looks at the complex totality of experiences, the interaction between agents and contexts in which these come together (Creswell, 2009), with an ultimate aim of making sense, interpreting, the meanings other make of reality. As Crotty (1998) shows, open-ended questions suit this paradigm, so as to draw out meaning from participants, rather than imprint it onto their experiences. Researchers should also be familiar and close to those contexts in which they come together, while questions are inductive and arise as the data is generated. This was the case in this study, with the researcher able to be immersed in the college, classroom and online context and with an iterative gathering of data, as explained in the next chapter the questions were refined as the study developed through the different stages of data collection and analysis.

5.5 Grounded Theory

This section intends to explain certain procedures taken from Grounded Theory, while not subscribing to certain tenets of it. The main reason for this is in the position taken by Glaser and Strauss (1999), as proponents of Classical Grounded Theory, who advocate for the suspension of the researcher's preconceptions when conducting analysis. This systematic method has strict methods, which were deemed problematic for this study.

In Grounded Theory, an initial coding approach is taken, where data is treated with an open mind as far as possible in order to remove influences from pre-conceived knowledge. This should then yield a *tabula rasa*, which can allow for clear comparison to what is already known after the data collection and analysis periods. Miles and Huberman (1984) state that researchers always come to fieldwork with orientating ideas and foci that are omnipresent. Indeed, Gubrium and Holstein (in Silverman, 2000: 62) believe that even in minimising presuppositions, researchers adhere to tenets of naturalistic inquiry. Accordant to this, it was felt here that the strict constraints of this position were difficult to replicate, as well as unhelpful. The separation of prior knowledge derived from a previous MA literature (Scott, 2012) review by the researcher had already shaped the initial research proposal and informed potential solutions to the research problem (namely the potential affordances, real or not, arising from learning technologies). Notions of community (of inquiry and of practice) were pertinent to aspects of the research design in its choice of a situated learning space. Furthermore, in interrogating the data, consideration was paid to affordances, such as Crook's (2012) claim for inquiry, collaboration and publication as affordances of social software. Awareness of these elements and the construction of a literature review results in an inductive approach that is not in fitting with these basic tenets of Grounded Theory.

A significant difference in approaches is also in the identification of an absolute, complicit with a 'Classical' Grounded Theory tradition. This is not the aim of constructivism, which is more open to diverse theoretical outcomes (Crotty (1998), but Breckenridge *et al* (2012) propose that grounded theory studies do not investigate people, but "patterns of behaviour in which people engage" (2012: 65).

Ultimately, this research analysed patterns of behaviour within the social network, which were then translated into conceptual patterns as the method taken using theories that supported the interpretation of data. These were then subsequently interrogated (confirmed or rejected, as far as possible) with rigour through the data analysis arising from the participants responses in interviews, which allows for malleability in the approach. Nevertheless, the procedures within Grounded Theory provide some analytical approaches, such as its principal stages and the eventual construction of an explanatory model.

5.6 Limitations of methodological stance

Constructivism is often criticised as too subjective to be treated as a verified tool of philosophical discovery. Yet a reason it fits with this research study is that as a socially mediated concept, subjective experience seeks agreement with others (through, for example, interview). This is an argument given credence by Heylighen's assertion (1993: 2) that social constructivism "sees consensus between different subjects as the ultimate criterion to judge knowledge. 'Truth' or 'reality' will be accorded only to those constructions on which most people of a social group agree".

Limitations of 'subjectivity' are often made as critique of constructivist approaches, but with participants' involvement in methods as implicit, the researcher seeks to represent multiple world views of reality with the research population drawn upon to mediate findings. This is then interpreted by the researcher in a process - of interpretation of text and oral communication - regarded as hermeneutic approaches to methodology, used here in the analysis of the online space and interviewee responses. The singularity of the researcher as interpreting the data is limiting in the sense that it is their personal view, including their assumptions and background, that informs this interpretation; in some sense this is a compromise of others views, yet the prolonged engagement (Lincoln and Guba, 1985) into the culture allows for insights drawn by such an 'insider researcher'. Although consensus by themes is a means to identify agreement between subjects, attention is also paid to anomalies to try to incorporate all voices. This is an aim at limiting the potential for bias. The use of audit trails to explain each step and decision made in the research process helps to show

aspects of reflexivity, which aim to sift the data from a less subjective position towards a more distanced perspective by the researcher.

5.7 Researcher's position in the field

Traditionally in Interpretative research, the researcher acts as a recording instrument to the reports of participants' experiences (Denscombe, 1998). With some degree of interaction with subjects, the role of 'inside observer' becomes part of processes in many research approaches. In this study, the role was more one of 'practitioner researcher' (Ellis *et al*, 2014) or 'teacher-researcher' (Barden, 2014), as the writer was both teacher of the participants and an external researcher. It was, perhaps, unconventional to adopt dual roles as teacher and researcher, and may complicate procedures, but it can be an approach that allows for immersion and greater depth with the participants that outsider researchers seek (particularly, in this instance, the learner participants' educational backgrounds to some extent, which contribute to their present experience). It is also felt that it adds authenticity to a study in terms of the natural and more familiar relationship to participants.

The role of teacher is quite pronounced in the Edmodo site, as activity tends to stem from the teacher in the normal course of the teaching practice, i.e. posting resources, questions and reminders. Holliday (2002, cited in Engin, 2015) states that it is undesirable for a researcher in a situation like this to behave in a distanced and objective way, as it would detract from the learning experience of the student cohort. Exercising this was mainly straightforward as analysis of the content from Edmodo was made off-site and during holiday periods when distance from the material and its authors could be applied. At these times, adapting a greater role as a researcher meant continual logging of reflexivity regarding the writer's status, prejudices and pre-conceived ideas in an attempt to bracket such influences out of analysis.

The point must be made that the teacher's main role within Edmodo was focused purely on supporting the students through their syllabus. For example, no communication was made consciously in terms of a role as researcher and posts were ordinary to the duties of a teacher (to plan and provide resources for syllabus). Furthermore, it should be noted that the conventional methodological approach of Action Research (AR), where a researcher aims to inculcate either personal or organisational change (Newby, 2010: 61) was not adopted here.

Partly a reason for this was systemic: educational institutions approached to participate in the first year, expressing interest, gradually withdrew from offering departments and staff to implement the research design. The reasons for this repeated lack of participant organisations or staff into the research design reflect issues outlined in Chapter 2.2 as 'tensions': namely, staff as unwilling to contribute extra time to their students outside normal duties, uncertain of the technology and, in one case, with a senior staff manager vetoing a willing teacher's involvement, because of her lack of teaching experience, reflecting a need to be grounded in classroom management over extraneous methods.

When different paradigms are conceived, such as the application of constructivism by the researcher and those of Positivist participants, then the research purposes and objectives can become blurred. While Action Research, conventionally grounded in educational research, undertakes some approaches similar to this study, an assumption is made of a simultaneous recognition of issues and the researcher would need to coerce those teacher-participants to comply with directions set by the academic researcher. Departments, and staff, invited to the study may feel compelled or constrained in their personal professional practice by such motivations as blending use of a situated learning space into the classroom teaching, the close monitoring a teacher may need to undertake in using a personal learning space or the responses needed to be made by them to students' needs outside their working hours.

To illustrate differences with potential participants, an example is provided. A main method of Action Research is classroom-based observation. Following an explanation of the purposes of this study, a potential participant teacher invited the researcher to sit in and observe a lesson. The teacher's own interest was in recording the time it took to connect to the school's network and for students to log-on to the learning task in Edmodo in a short 45-minute lesson. While an interesting exercise, essential differences reveal difficulties in transferring Action Research studies. This researcher is less interested in classroom-based application of the social network and more on the use of the network independently. Indeed, closer interests are in how Edmodo can reveal instances of the inner-world, experiences and thinking of the student; moreover, how the social elements of the situated learning space contribute to a learning community and how they draw in engagement and reveal motivations. Such key

differences (in paradigms taken, in teacher-participants views of the platform, its value and how it can be used, of their integrated use in the classroom, in the age range and level, and the time-span of lessons, as well as objectives attained from use), would require a researcher imposing a way of working with the network onto another's classroom group, potentially causing tensions in the study.

Also, as Hine (2013) notes, Action Research is often used to induce improved student results, which was not a principal expectation or objective of this study. Furthermore, similar studies from technology enhanced learning, draw extensively on particular socio-cultural theories to inform the research, such as Activity Theory (Engeström, 1999), as was used here which may further obfuscate approaches of Action Research that seek to explore problems and present plausible solutions. A 2001 report by Engeström stresses the 'multi-voicedness' (2001: 6) of community members as a principle that pervades Activity Theory, as they bring histories and personal experiences that can be problematic or opportunities; these are at the core of the study as the lens of Activity Theory explores relationships between agents (students within a community and the teacher in mediation) and objects (Edmodo and respective artefacts) to seek goals (preparation of learning for success). The focus shifts here to the ways the community has congregated, communicated and interacted – the possibilities and challenges surrounding the 'inter-organisational' activities of the members, rather than the primary concerns of Action Research, i.e. to improve a situation, which may be drawn upon as recommendations from the findings. There are similarities to AR, where certain intervention strategies such as blended learning were made to improve use of the network. These intervention uses of the network are discussed separately in 10.9. The focus of this study is not on the elements of what works effectively, but on the online behaviours and interactions of students.

5.8 Establishing trustworthiness and rigour

The aim of Interpretative research paradigms is not to establish singular Positivist truth. In that kind of study, methods undertaken should be based on criteria of validity, reliability and objectivity (Hammersley, 1990, in Silverman, 2000). This allows the testing protocols of those studies to be reliable and replicable as far as possible,

though as Westbrook states, even in Positivist paradigms it is impossible to claim meaningful or unbiased results, but only ensure measures are taken to try to ensure integrity (Westbrook, 1994).

Lincoln and Guba (1985) propose that validity, objectivity and reliability are substituted in qualitative research for principles adhering to:

- Credibility
- Transferability
- Dependability
- Confirmability

The reasons cited for this are that in quantitative research, findings are sought that are framed as truths, with validity a property of the methods undertaken to establish such truth. Lincoln and Guba assert that the criteria set out above are a better reflection of assumptions that surround qualitative research, such as a sound presentation that methods adopted will fairly and rigorously interrogate phenomena. Each of these is now addressed in terms of this study.

5.8.1 Credibility

To establish credibility, Lincoln and Guba (*Ibid*) state that researchers must make 'prolonged engagement' with a phenomenon or population to become orientated. The objective of this is to become immersed with familiarity to a topic, but also to allow for some sense of detachment that can allow for space to retain a neutral inquiry. It is perceived here that this is reached in one sense by the dual position of the writer as teacher and researcher. This also underpins Lincoln and Guba's recommendation for 'persistent observation' (1985).

As discussed in the personal statement introducing this thesis, it was a long held perspective prior to commencing the research that claims surrounding the affordances attributed to Web 2.0 (identified and discussed in the literature review) and their potential for transforming educational experiences (provision, the role of the institution and teacher, and particularly the individual agency and behaviours of students ('engagement')) were dubious in relation to low-engaged students and the working realities of a pressurised academic environment. With this in mind, the investigation began with consideration of the plausibility (Miles and Huberman, 1984) of claims

illustrated in Chapter 2.5 regarding learning affordances of technology. As a researcher, a balance is sought, whereby researchers get close to their subject but retain enough distance to protect marginality. The balance is difficult to achieve as a teacher closely integrated to the group and the online space, but expectations of what would occur in the space were never high enough that great stock was placed in the affordances discussed in the literature review, however as a teacher time was invested into it and an emphasis on it as a supportive resource where reiterated to the students.

As a teacher, the time attributed to the online resource allowed engagement with the population in new ways, such as regular reference to the mobile activity of Edmodo when meeting in the classroom. This was not always significant to the research project, but allowed the drawing of a memo log (Lincoln and Guba, 1985), which integrate referential materials. Any scepticism of technologies values allowed for some distance to be retained from hype claims surrounding the phenomenon as a researcher, but with the opportunity for sustained praxis. Memos were made of observations of in class use, which correspond to Corbin and Strauss's (1998) recommendation of a "researcher's record of analysis, thoughts, interpretations, questions, and directions for further data collection" (1998: 110). The resulting vignettes bear out the sense of wonder adherent to natural inquiry that is advocated as an experience of the researcher in retaining objectivity, which – where appropriate - are referenced through the analysis, findings and discussion chapters. Indeed, sometimes they allowed for reflection and sustained considerations, especially on the accounts of student's use of the space observed in classes. Usually these notes were recorded after the fact, but re-discovering them after leaving them to mature placed significance simultaneous to the iterative analyses being made. They were, in short, very supportive records that gave insights to students' experiences. In this way, it was possible to construct narrative accounts of users experiences and to avoid being selective of types that comprise 'anecdotalism' (Silverman, 2000).

5.8.2 Transferability

In a social science research study, transferability may be harder to establish than the comparable generalisations of a Positivist study based in the natural world. The specific and situated context bounding this study is supported through data collected in the form of participants' views, which are themselves specific and highly contextual

(influenced by their personal backgrounds, experiences, habits, beliefs, etc.); their accounts and experiences then bound this study as Interpretative. This Constructivist paradigm emphasizes a diversity of ways that meaning of the world is constructed as realities, making the case study potentially more narrow than general. This is made more problematic – or original – by the iterative process, where decisions were taken through the process as arising from the data; steps which are as a result of emergent incidence in the study that may not be foreseen from the outset, and which may not necessarily occur if the processes were replicated elsewhere.

Nevertheless, the research problem is based on a very general issue – that of disengaged students re-sitting a qualification they have not successfully completed in school. As discussed in the Research Problem (1.2), with numbers in excess of 100,000 nationally migrating from secondary schools to FE needing to re-sit (Porter 2015: 5) this represents a raft of problems, not the least of which are described as staff issues, accommodation for exams and timetable issues (Ibid). The context of an online situated learning space has become more prevalent in current debates surrounding provision (FELTAG, 2014), suggested as a source of support for such extensive numbers re-sitting. If this disengagement is merely ‘transferred’ to online settings then recommendations are needed to understand why and potentially what alternative can be sought, as there is no guarantee that technology provides a restraining solution to ongoing literacy issues. A repertoire of intervention strategies, not restricted to Blended Learning, is proposed in the findings which may be transferable ones. Burden (2012 thesis) makes the point that transferability is predicated on context and setting as transparent to readers allowing readers to interpret for themselves how plausible its transferability is. The context and settings are clear: an FE context and GCSE re-sit group and a situated learning social network space as a supportive platform to promote community. Although the analytical lens of the LTCA theory may be unique to this research study, similar research based on the contexts of FE re-sit groups using assistive technology platforms can be straightforward to replicate.

5.8.3 Dependability

Aligned to reliability, dependability in research is set criteria to allow other researchers to repeat processes in order that cases can be transferred to achieve similar results, or perhaps altered to improve those results. There is some discrepancy in this notion

when an Interpretative paradigm is adopted in the particulars of the context that make it original, as discussed above. Nevertheless, some means need to be shown that a dependable process was taken that lends itself to credibility. The following were adopted.

Creswell (2009) suggests steps for qualitative reliability, which make it consistent with different researchers and projects – though this is entirely dependent on what is being sought and the epistemology taken, i.e. statistical outcomes will deploy different methods and are probably more likely to be positivist. (as Chapter 4.4 showed how similar studies influenced the methods taken here, or those that did not). Gibbs (2007, in Creswell, 2009) recommends some reliability procedures, including continual checks of the secure definitions of codes, constant comparison between data with codes and writing of memos about those codes and their definitions. An audit trail, recommended by Lincoln and Guba (1985) is a means of making the processes as transparent as possible through reflexive memos and vignettes, especially during the coding process. Transcripts of interviews themselves serve to record accurately the language used by students; while these do not take into account paralinguistics or nuances, hesitations, etc. the boundaries these represent are taken into account by cross-checking against content analysis from Edmodo. The mixed methods of observation (used here in a natural setting without obtrusion from an outsider researcher), content analysis and interview may all complement each other, particularly for a Naturalistic Inquiry, where - as far as possible – any influence on participants' behaviours is impeded. This is achieved here where the teacher is the researcher.

5.8.4 Confirmability

This is taken as analogue in comparability for objectivity – the elimination of potential for bias in a Positivist study. Here this is complicated by the position of the researcher, who stands as central to the data collection and its interpretation and who brings a set of values and assumptions to the process. As a teacher, general values are in the best interests of students taking the best opportunities for success and development, including full advantage of every resource available. There is some blurring here between the impartiality of an outsider researcher, who might view the situated space with an abstract interest and the researcher's attitude towards Edmodo, where participation is promoted. This encouragement for participation would normally occur

in a classroom setting, ergo: it was not promoted to construct an artificially rich study where students adapted to an online space in interesting ways, but to improve opportunities for success. Indeed, many students did not take to the online space, endangering the richness of the data in respect of posts they made (as artefacts of analysis); instances of low-engagement or 'silence', were explored in interviews. Highlighting incidents of this – or disagreements over themes in participant interviews – is part of the procedure within a constructivist study, as explained by Charmaz (2003, in Denzin and Lincoln, 2013), who states a purpose of research in this paradigm is to construct, draw and reassemble subjects' lives, something achieved as an Interpretative portrayal, rather than an actual picture (Charmaz, 2006). Since Lievrouw (2006, cited in Whiteman, 2010) discusses how *contingency* (the range of possible conditions) can never be made certain, reasons for disengagement form as much a part of the holistic research question, and picture, as 'enhanced engagement' of this study. The relevance of this to *confirmability* is in validating all voices, while making an audit trail of values that are inherent to the questions, the choice of research design, in analysis and in reporting findings. To these, the outsider-researcher as instrument would usually be viewed as more objective than an insider-researcher, but as already stated a knowledge of the student's identities complements this research in ways an outsider could not: to say, for example, '*Student X has been disengaged in the classroom throughout the year, but shows great ability to work independently through the online space*' is an insight afforded through close observation made possible for the teacher as researcher. Some value is apportioned to the researcher's assumption of what is meant by 'ability' or 'engaged'; while in a Positivist study these would have fixed parameters, in an Interpretivist paradigm, these change by circumstance and can be bracketed out in reflexive memos as an audit trail process. The audit trail then forms an important record for readers to gauge elements of 'confirmability' as they see it.

The researcher's own views of the platforms values to teaching and learning changed perpetually, so checking these against the assessment of others was part of the audit trail. In aiming to ensure confirmability of the research and neutrality by the researcher, the apparent affordances ('apparent' since they themselves are under review) of the network to support learners was presented to colleagues within the college, who didn't share these perceptions and refused to participate in comparative

studies. This was achieved through forum discussions with a professional teaching community within the platform itself in a separate group page. Most of the responses from this community of teachers were highly positive attitudes towards the format and the study; many of those teachers expressed views that Edmodo did not in itself improve motivation or interaction, but was supportive simply by being there. The first of these is part of the investigation of this study involving the views of the student community; the second view appears technologically determinist, i.e. that the existent presence of the technology alone, without much human input beyond the posting of resources, is sufficient for engagement. In formal presentations to the Faculty of Education at the University of Hull, some of the researcher's ambivalence regarding the form was dispelled when reflective evaluation was made of the affordances. To augment the audit trail, a presentation on Edmodo was also made to teacher-trainees at the university, whose views of the platform appeared underwhelming due to their unease with adding further layers to their initial professional development. Alternatively, in disseminating aspects of the study to those within the learning technology community (in an article for a Mobile Learning journal), highlighted more positive responses – particularly with regards the enculturation of social tools. Finally, mixed responses were gauged from a lecture to Education Studies students (i.e. not necessarily those entering the profession as instructors).

These mixed responses aided perceptions of 'multivoicedness', while clouding the case for confirmability: on the one hand, the teaching community appears content-dependent, leaning on subject-knowledge to support its early professional development, yet learning technology communities – and many long-term teachers – value any tool that accentuates access and provision. In a sense, this assists the case for confirmability of neutrality, since the researcher must acknowledge these attitudes, bracket out the dual perspective of teacher and learning technologist and bring the views of learners themselves to the forefront. Part of the concluding response from the researcher in the study is to make summative assessment of the value of the tool's affordances on behalf of learners and teachers arising from a neutral position of scepticism.

5.9 Summary

This chapter has outlined why the Interpretivist paradigm adopted is most suited to approaches to understand experience and meaning of the student participants' experiences using the social networks space. This was positioned against alternative paradigms deemed unsuitable as reductive or not exploratory of phenomena in a natural setting. The paradigm informed the study and due considerations, which will lead to an explanation of the methods undertaken. Grounded Theory, taken as a strict set paradigm, was rejected as an approach, due to its foregoing of what perceptions are previously known by a researcher from the data analysis stages, which do not fit with approaches taken in the Initial Coding stages explained later.

Of key significance in this section, and to the Interpretivist paradigm, was the position of the researcher as close to the contexts and sample population, as recording instrument and interpreting the communications of participants, who are central to explore meanings in the phenomena of online learning communities. This allowed for sustained immersion in the study, which helped to shape the researcher's subsequent methods of data collection. More importantly was researcher as insider to the procedures of data analysis undertaken, as reliant on the researcher's presence and inside knowledge to understand and translate behaviours in the online social network and how these potentially mirror or differ from classroom behaviours. This chapter also explained the means for which validity is made in qualitative research of this kind, with explanations shown of how this was secured as far as possible by the researcher, through the use of memo logs, observation and fieldwork notes and aiming for criticality by inclusion of anomalies in the case of negative case analysis. These will be drawn upon when explaining the analysis stages, particularly the Selective Coding (7.2.3). There are contextual boundaries in the ways that the study is formed, which may make its transferability problematic. The study is a reporting of empirical incidence in the context of an FE College with four groups across two years; differences in experiences will be explained in the following section.

The next chapter outlines decisions made throughout the data collection processes taken, which then leads to the data analysis, data representation and subsequent findings. It will show links between the paradigms outlined here as continued rationale for those methods.

Chapter 6 Data Collection: Methods

6.0 Organisation of the chapter

As explained in the previous chapter, the use of social media data is presented as a legitimate form of representative content for a naturalistic inquiry paradigm. This user-generated content constitutes a case study approach, where a holistic aim is to conceptualise situated learning experiences around social networks. This documentary data is supplemented as a primary source with further data (observations and interviews) to further represent participants' perspectives and experiences.

This chapter explains the rationale for the different methods and data collection instruments. Since the case studies involved emergent and inductive processes some iterative practice occurred, which is also explained to show the decision-making in the field. The chapter begins with a clarifying discussion of the boundaries and constraints that limit this type of study. This is followed with an overview table (p. 140) of the samples collected for case study and the phases of research. There follows a rationale for samples for interviews across both phases and an explanation and rationale of the types of interview chosen. Implications of and procedures for the obtaining of ethical permission is explained at the end of the chapter.

6.1 Boundaries and constraints within the data collection

There were four phases of data collection to the overall case study made across two years (2013-14; 2014-15) of data collection and analysis. These were bound in various ways. The main boundary is in the size of the participant groups involved; this is not presented as an aggregate of a national demographic, but in its age range and background may be said to represent FE cohorts studying the re-sit course. It was found during interviews that some students used alternative social media platforms for student-student conversations (such as Facebook) to support their learning, potentially affecting the ways Edmodo was used. However, some students reported traversing both networks almost simultaneously. Edmodo itself has no 'chat function', which students also reported a desire for, highlighting technical boundaries of the network.

The case study comprised content analysed as data from the social network Edmodo (see 6.2.3 for full details of types of data in this). Data for analysis was constrained only to that which was posted to the community 'wall' visible to all participants. The reason for this was that this served as 'shared' communications aligned to the Community spirit of the social network.

Temporal boundaries restricted some data of interest that arose, decisions which are explained in Chapter 6.2.2. Effectively, temporal boundaries were consciously imposed on the content analysis, with Phase One's Edmodo data coming initially in the period of September – December, before being extended to April.

Boundaries exist behind decisions of what data were collected, which was constrained to wall-postings, as these were deemed more open to participatory discourse from students within a community than direct messages (which are sent as concealed private messages to the tutor). Boundaries may be said to exist in terms of students' ability to post outside of lessons, e.g. if they have no access at home to the Internet to get to the online network, but students were directed to interact with the network and access to computers was available throughout the college site.

It must be made clear here that the study was bounded by curricular constraints; that is, a syllabus was required to be delivered, which would see much content and activity centred arising from this network as based around educational objectives. Therefore, while analysis is made of the content (communications within the network) it must be recognised that much of this content was a map of the course. Data from all forms, interviews and the content analysis, is also bounded by restrictions of the discourse of ideas expressed between students and teachers, as the conduct of this relationship is mainly on a professional basis, so social interaction on a personal level tends to be curtailed.

6.1.1 Saturation

Saturation is a term used by Corbin and Strauss's (1998) to reflect the stage at which no further categories emerge from data analysis, so no further data collection is necessary.

In Phase One (2013-14) data was collected throughout the syllabus year of September – June to reflect the natural span of the college year. In order to avoid

saturation of handling this data, in Phase One, analysis was first made of the September – December period in order to sample trial the coding methods. The resulting codes were segregated as Initial/Substantive Codes, left to mature (give distance to) and returned to for Selective Coding and other treatments. The collection was repeated in Phase Two but extended to April in line with emergent questions and iterative cycles of inductive comparisons, at which point saturation was reached.

As mentioned in the previous section, the selection of which details were taken from Edmodo for collection was also informed by a sense of saturation; where comments were posted openly to the community wall, these were gathered for analysis (but private direct messages were not).

6.2 Overview of Data Collection and Analysis stages

6.2.1 Data instruments

Edmodo.com as an artefact for data collection of all participants across two phases is the main context for the content analysis (represented as Case Studies (CS) 1-4). Types of data collected from Edmodo are described next.

6.2.2 Temporal data collection and analysis

As previously mentioned in 6.1, a decision was made for the periods of data collection in phase one as September – December as a form of initial coding, even though potentially interesting data still arose at the culmination of the year when Phase One students had more confidence in using the site.

The data from that later period (Jan – April) was returned to as purposive sampling at the study culmination to compare emergent findings from Phase Two against. This approach allowed for inductive checking – moving back and forth between data sets – to evaluate the identification of Selective codes made in Phase Two by returning to Phase One and in order to better develop the theoretical building.

In Phase Two (2014 – 15), the boundary of analysis September – December was extended September to June to explore deeper the emergent and inductive questions and richer sources of communication that arose through repeated use of the network.

Overview of data collection Table

| Phase one (2013/14) Edmodo data collection and Interviews | Phase two (2014/15) Edmodo Data Collection and interviews |
|---|---|
| <p>Case Study 1. Sep – Dec 13/14</p> <p>Population type: all students (n=23) from an adult evening ‘standalone group’</p> | <p>Case Study 3. Sep – April 14/15</p> <p>Population type: all students (n=16) from an adult evening ‘standalone group’</p> |
| <p>Case Study 2. Sep – Dec 13/14</p> <p>Population type: all students (n = 27) from a ‘cross-college’ group (mixed age, some school leavers, some vocational adult students)</p> <p>Total n = 50 students across both groups</p> <p>Supported by observational data within classroom lessons and informal questioning of students’ actions, attitudes and behaviours with approx. 10 students from class groups</p> | <p>Case Study 4. Sep – June 14/15</p> <p>Population type: all students (n=21) from a cross-college group (16 – 19 years only) with some school leavers, some ‘repeat third time’ students)</p> <p>Total n = 37 students across both groups</p> <p>Supported by observational data within classroom lessons and informal questioning of students’ actions, attitudes and behaviours with approx. 15 students from class groups</p> |
| <p>Following analysis of Phase Two, more data was collected to April from the Phase One groups use of the website and treated to further analysis using the same methods</p> | |
| <p>Followed by questionnaires to all students in May 2014, resulting in n = 9 responses</p> | <p>Due to low response in Phase one, phase two followed with in-depth semi-structured interviews with n = 6 students in May/June 2015</p> |

Table 5 Overview of Data collection

Iteratively, this process allowed for the introduction of the LTCA theory embedded as lens of knowledge construction communications, and with identifying mobile access as improving engagement. It should be made clear that while constant comparison in the analysis was sought, clear demarcation of the groups was impossible to secure. The Phase One cross-college group was a mixed age group comprising both under-19 students and adults; furthermore, the adult classes from both phases based in the evening consisted of 'standalone' (i.e. only studying English - and possibly Maths – rather than attending study on other courses) students. As such, comparisons of adults within those standalone courses taking classes at night, with adults studying a vocational course and taking the English class in the daytime is not clear cut as it will contain different motivational purpose and, potentially, time invested in the network. While not ideal, this reflects the reality of Naturalistic Inquiry and organising coherent timetables and populations within the class groups is beyond the control of the researcher.

Phase One Questionnaires

Phase One, as explained, was followed by Structured questionnaires with nine responses from students, which were analysed by:

Open/substantive coding

Selective coding

Affective coding

Phase Two semi-structured Interviews

Following Phase Two, face-to-face semi-structured, in depth (n=6; 2 adults and 4 cross-college students) interviews were made (May – June, 2015). The analysis process was repeated from the Phase One Interviews. Insights drawn from observational data has been integrated throughout discussions of findings to further elaborate on codes drawn from interviews.

Observational data

Observational data was drawn from less formal discussions with students, particularly the Low Engagement Users defined in 6.3.1, where a rationale and explanation of this

form of data collection is provided. This decision was made following Phase One to support the less prolific responses by low engaged users, who could not be drawn to interview. Memos were drawn of such data and are introduced into the data collection, analysis and discussions.

6.2.3 Artefacts from Edmodo for collection

This section outlines the artefacts from Edmodo that were used for the content analysis. It should be made clear that each phase was a separate group account in the website, i.e. the population from Phase One would not be able to see the content of any other groups as all are separate groups (thus, cross communication was not possible unless the teacher posted a message to all groups).

Students were instructed at the terms start of both phases (September) to create profiles to set up their account in Edmodo. These profiles were quite limited – the page allowed for a quote, a career aspiration, a learner style preference and for a personal image to be posted alongside their name.

Data consisted of user generated content ('posts') from an open (visible to all) community wall and comments on other students' posts. There was potential within Edmodo for the creation of small group pages within the main group, so the same was collected from these separate pages for analysis. Types of posts were varied and were categorised in the analysis.

As mentioned in 6.1, although students could send messages privately to the tutor these were not taken into the data collection for two reasons: firstly, they were not 'community' visible contributions and secondly, this was selectively disregarded to avoid saturation. However, where these were considered interesting messages that complemented an illustration of particular student behaviour, they were drawn upon in memos, i.e. where a student continually messaged the tutor, but never posted openly. This was made clear in any rendering of those student types in analysis as differentiated to community posts.

A distinction may be made in terms of posts made by students directed to the teacher and posts made directed to the community at large (or to individual students). However, anything posted openly to the wall was collected as a post by a student – usually these were in the shape of:

- Questions
- Reminders for the teacher or group
- Notifications (i.e. absence, lateness, etc)
- Shared learning resources
- Work posted as instructed

Figure 5 is a screen shot of the network wall, showing varying posts from linked resources being shared (which would be categorised as such), to appreciation. The post is queried by the teacher for recall purposes and in the post lower down the page, a student has responded to a previous enquiry with some pasted content (i.e. not user generated, but copied from an online source). The Image shows example page of posts by students ('Me' is the teacher-researcher) that were drawn from the website and later coded in annotations on Microsoft Word documents.

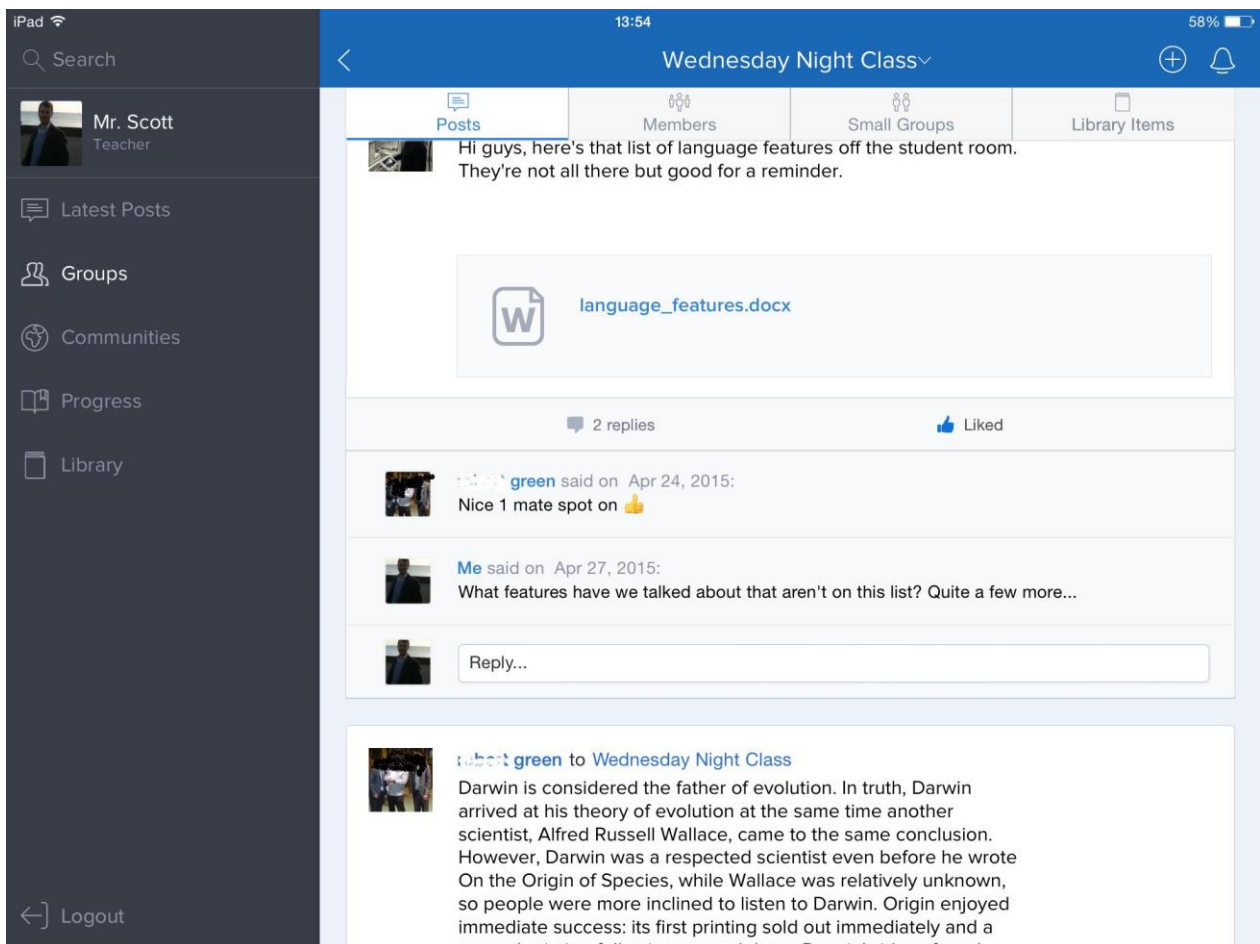


Figure 5 Example of Edmodo wall posts

For the respective research questions, a separate analysis was made of posts made by the teacher (the researcher) to the group or to individuals. This was done to elicit

types of communication that generated responses and to reflect on the teacher presence and role in the space.

6.3 Sample populations for content analysis

6.3.1 High-engagement and Low-engagement users

Before continuing, clarity is provided of a key term used henceforth. Reference is made to 'high-engagement users (HEU)' and 'low-engagement users (LEU)' to describe the selection of certain participants from the population. A high-engagement user was a category of student who made multiple posts to Edmodo, while a low-engagement user was someone making minimal posts. A low-engagement user of the site was categorised as someone making fewer than 5 posts across the data collection period. Low-engagement students may also show complete non-involvement, creating a profile which includes only their name (as a prerequisite of setting up an account). More detail is provided on these profiles in 7.4.2. There were also what may be termed 'mid-engagement users', whose posts seem more arbitrary than habitual. In terms of frequency, these mid-engagement students posted between the low and high-engaged students, and may have acted peripherally to the community by sending direct messages of notifications for absence/lateness or in looking for feedback, or posting as instructed. A distinction became clear of a high-engagement student as more mobile and independent. All user types posts are taken into account, with low-engagement users represented during interviews. It was difficult to formally draw LEU into interviews, given attendance problems and resistance to participate; augmenting the data with insights drawn into non-use by such members was made with memos drawn from observations and responses in classroom lessons where Edmodo was referenced. This allowed the researcher some extemporaneous discussion with those participants to understand particular habits or behaviours, for example tendencies to repeatedly forget passwords, not submitting assigned work, and probing of impromptu disclosures by students of attitudes towards Edmodo in general.

For clarity, across both phases there were two separate types of groups, explained below.

6.3.2 Adult groups

Adults students clustered to this group are distinctive; they may have been at college to undertake the English GCSE course alone ('standalone') or alongside other core

qualifications like Maths. Usually they were in employment, which necessitates securing the qualification, they felt a personal challenge in undertaking the course, or they were looking to go into further training or higher education and needed it for access. Across both phases the adult Case Studies were night lessons held once a week for two hours.

6.3.3 Under-19 groups

In Phase One, the cross-college group comprised a mixed-age student group with some 16-19 students and other adults. The students were clustered individually according to age in the analysis of profiles. They were from a variety of courses and have English lessons once a week for two hours.

In Phase Two, the cross-college group consisted entirely of 16-19 aged students, with some students repeating (described from now as 'Repeat-Repeat students') from the previous year and some entering straight from school.

Initially, comparing these different groups in terms of age, gender, learner abilities and points of academic interest was deemed complex due to the Phase One cross-college group with mixed ages of students. This was because the impact of having adults in a group with under-19s seemed to marginalise younger users of the site, mirroring the reticence of the younger cohort in the classroom. This was borne out in later interviews. However, it appeared that a comparison in Phase Two where the separate groups comprised adults/under-19s was tenable. The variety of comparative approaches made during analyses is highlighted later.

6.4 Handling of data

Despite difficulties of handling the potential quantity of data across an entire academic year from relatively small numbers of students (Phase One $n = 50$), at the outset the study aimed to explore the students as a community inclusive of all members. As such, no one's contributions to the social network were discounted. This changed in the course of the study, more by circumstance of natural attrition than by design, as some students left the course within the first term, so the population became focused on those still on the course and active in the site. Despite being instructed to be as active as possible to support their chances of progression, not all students were engaged with the site, lowering the count of those visibly posting as participants, so

that from 23 adults in Phase One Group One who joined, only 12 members actively posted (determined by the researcher as five posts or more). Although all students joined the site, many used it for other purposes than actively posting, such as reading, accessing resources or posting privately to the teacher.

In the first Phase, the primary interest was in analysing the data posted publically. Across the time span of September to June, even with just 12 students in the Phase One Adult group, this still presents a high quantity of data to analyse. Meanwhile, of the mixed cross-college cohort in Phase One, of 27 in the class group, only 15 were active participants with at least one type of post created, four had left the course and the rest were discounted as not involved, reducing the focus of participants to those 15.

In Phase One, this combined to a total of 27 students across both groups whose contributing posts were collated as data. This was a small number for a generalization study of the phenomenon as representative of the larger 'national' GCSE English FE population, though a reflection of the national body of students is not intended in this more localised case study. From the outset of the study, the devising of theory has been of interest over the statistical sampling that may be used to represent general experiences.

The observational data were collected from approximately 20 extra students, most of who were from the Under-19 groups.

6.5 How the data were collected

As explained earlier, the primary function of the site is in supporting students through their syllabus. To this end, the teacher-researcher went about the duties and activities normally, posting resources, questions, starting discussion threads, reminders, encouragement, etc.

To explore network uses, responses were focused upon. Usual practice in data collection may involve the utilisation of computer assisted qualitative data analysis software packages, such as Nvivo which assists in the sorting process by isolating codes, themes and categories allowing for annotations and visualisation of data in one space. As shown by Paulus and Lester (2013), these packages help organise the procedure, but following previous research processed undertaken at MA level, the

researcher decided to use a standard and familiar approach to analysis, which was more manual and involved recording data in Microsoft Word. This decision was also made because importing the Edmodo data from the wall feed into Nvivo wasn't possible in the way as it can be with social media content, such as Twitter feeds. The feed from September – December in both case studies for both phases was copy and pasted to Microsoft Word. Handling the data in this way resulted in a static reflection on Word of the data from the live wall of Edmodo for the time bounded periods under analysis. This resulted in six separate documents for each phase, representing Sept - Dec and two extra documents for the periods Dec – Apr 2015 for the second year.

While the lack of an assistive package made the analysis fairly laborious, it allowed immersion, supported by daily logging in to the site to view activity. Codes, memos and notes were applied to static Word documents, revisited continually, with a separate compilation of memos and analysis log supporting comparisons.

6.6 Ethical permission, informed consent and access permission for students

Access was a routine procedure in this study, since Edmodo formed an ordinary part of the learning resources of students for the course and the researcher is the teacher on that course. In line with the University of Hull ethical guidelines, the teacher's role as a researcher was made clear to students from the outset of the course in order that there was transparency of purpose. It is difficult with a Naturalistic Inquiry, where normal behaviours need to be assured in a study, to guarantee that and to ensure ethical transparency. Explanations about the purpose of the research were explained when introducing students at each phase of the research to the website; this was not expected to affect the behaviour of students in the online space. Analysis of social media data is fraught with ethical problems, particularly in the case of public sites, and a clear statement needed to be made about research intentions. The explanation given to students was to the ways the site was used by students and their interactions. The website is not public domain, but a closed, private network used primarily for students as activity (communications and materials) and learning resource; while participation was not mandatory, it was encouraged for learning objectives to be supported. The interventionist position of the researcher is latent, with data collected outside of term time. At all other times, 'normal' activity was in practice with the

researcher in a normal 'teacher' role in order to ensure a natural setting. As stated in 5.8.4 (Confirmability), contingency – attempting to determine absolute coherence over the range of potential conditions in an environment (online or other) is problematic: it is not possible to ascertain whether students may act differently when research purposes are explained to them, but normative behaviour was instructed to aim to establish this (e.g. by instructing students that assignments may be submitted through the site).

Since contributions to Edmodo were collected and analysed, any names of participants and personal effects such as photographs are obscured as they appear online in the space where duplicated visually here to protect the students' rights to anonymity and confidentiality.

When it came to interviews, permission was sought and approved by the college where the data collection took place, and by the university. Ethics guidance from the university points to the need to ensure no threat is made to psychological well-being, values and dignity of participants. Although some analysis of the subsequent data characterises some participants as 'low-engagement users' was made, this was not alluded during interviews in the shape of judgments made and the description of these characteristics is made to complement findings as realistic interpretations of the experiences of participants. A rough plan of interview questions, although semi-structured, was shared with the supervisor who approved their content. Obtaining consent from the college was quite straightforward and they appeared keen to learn the results of the study. The aims and procedures of the research study were clearly explained to all interview participants in a letter, which guarantees the confidentiality and anonymity of all participants in samples used from the website or in interviews as well as their ability to withdraw from the research at any point. This helped clarify that their participation was entirely voluntary. Informed consent was reached with participants and parental consent forms were given out for students under 18 and returned to the researcher. These documents were submitted in application to the Ethics Committee of the Faculty of Education and permission to proceed was granted.

6.7 Rationale for types of interview selected

Toward the culmination of Phase One between May and June, invitations were issued to students to respond to questionnaires. It was clear afterwards that this was a limiting way of eliciting information. It had been done with time-saving in mind,

anticipating that more responses than the small number would come back. Yet not only did it reap a small amount of responses, but the answers were not as reflective or exploratory as face-to-face interviews might be. This informed the second phase use of face-to-face exit interviews with a flexible, semi-structured approach to Phase Two respondents. This was because the literature review, questionnaires and content analysis from Phase One all developed iteratively to inform themes to be explored as face-to-face questions, but much more could be learnt from participants that the researcher did not know about (Lincoln and Guba, 1985). For example, the questionnaires elicited limited responses. Taking a semi-structured face-to-face approach meant more could be drawn from questions that revealed emergent themes. These methods fit with the adopted Constructivist epistemology by integrating the diversity of interpretations that can be made of reality where, from a Subjectivist position, the role of a researcher is to construct a view of the world seen by research participants (interviewees). The semi-structured approach then gave freedom for critical expression of a phenomenon (online learning) that aim to articulate students' own experiences (Silverman, 2000), rather than mediated purely by the researcher's informed understanding. The protocol for these interviews is explained further in 6.8.1

6.8 Population samples for interviews

From Phase One, structured questionnaires were issued to all students across both groups. These were made confidential according to 'in accordance with the University of Hull ethical procedures'. The small number and quite limited responses to the questions showed that another means of framing the interviews was necessary in the second phase, which was done by purposive identification of students based upon:

- Profile of student as user of Edmodo (i.e. high-engagement users or low-engagement users – a variety was sought).
- Age of student and conforming to group, as a mix was sought of both younger, cross-college students and adult ones.

Among 15 students identified for interview from a possible 37, the number was reduced to six by either willingness to participate or ability to meet with the researcher in the time allocated (as these were conducted following course end in the summer

term. Issues of biased that may be levelled against this were addressed in Chapter 1.6).

Of n= 6, three were male and three female; four were cross-college students and two adult students. Of the six, 3 were 'Repeat-Repeat students, with two having used the site in the previous year and three were 'new' repeat students re-sitting English for the first time. This small cluster represented the students categorised from the course: low-engagement user, male/female, mixed ages and of different stages of re-sitting English.

As explained earlier, the questionnaires mostly had limited responses in them, so a more exploratory means of eliciting information was sought. A semi-structured interview was felt a better protocol in the second phase to bring students into trust by making the format conversational with open-ended questions and encouraging further confidence and exploration in responses. Interviews also allow for a more spontaneous exchange, with questions guided by a set of themes that arose from the content analysis as a framework.

Unstructured (or less structured than fixed questions asked to all interviewees) interviews are perceived by Lincoln and Guba (1985) as a means to find out what they do not know and based on what respondents tell them, such as the case here for exploring resistance to participation by Low Engaged users. The procedure integrated 'exit interviews' (Westbrook, 1994: 4) at the end of the course. Westbrook explains that semi-structured approaches allow flexibility in questioning techniques to discover and clarify, based on what has already been heard.

In seeking to understand others' views and experiences, interviews apportion responses towards the interviewee when compared to the static means of a survey or questionnaire, which can fix responses and do not allow for participants open answers. Openness in interviews, while difficult to establish, was sought as it allows for the negotiation of meaning complicit to the 'construction of meaning' resonant with the Constructivist nature of inquiry.

6.8.1 Protocol of interviews

The low number of students able to do interviews was problematic, but depth was sought by using more semi-structured approaches, which allows for reflection to be

drawn in as the interviews proceeded so that further exploration of unexpected concepts can be scaled-in to subsequent interviews. According to Whyte (1979, in Westbrook, 1994), interviews can complement observations. Since the data collection is a thickening of classroom-based observation and – primarily – the content analysis arising from the groups, the interviews were another form and while the low number of respondents is not ideal, it allowed for further exploration to research questions. A dialogical approach enhances the interview form for the Interpretative paradigm, as it allows flexibility and more co-constructed meaning to be shaped by both participants in the interview.

A semi-structured nature of interviews allows an interviewer to have some control over the topics discussed, without going widely off subject but to allow for a less formal and more conversational approach. All questions were designed to gauge an holistic impression of Edmodo use; closely focused questions linked to the research questions were included into the body of less formal questions related to recreational use of social networks to appear less significant to interviewees. Westbrook (1994: 4) discusses comparison and comparative questions as helpful to interviewees to reveal similarities and differences between things, which was made here with reference to (recreational) social media use and classroom activities aligned to the online learning network. Some questioning was personalised on the profile of the student - their level of activity, their expectations for the course, what they did differently from the last year (if they were second time repeat students); some questions arose from the particular interests in identity and activities that were seen as supportive of identity construction in the space (as framed by the literature review and content analysis of the site) and others arose as themes in the questionnaires from the previous year.

Morse *et al* (2002) warn that Lincoln and Guba's (1985) notion of member-checking as a validation technique may, in fact, compromise the ways that participants are represented in research, as views become abstracted and decontextualised into reporting results, participants may not recognise their selves. With member-checking, this might restrain results as descriptive, rather than analytical. In the event of the interview, member-checking occurred with the interviewer recording notes as a mind-mapping process of respondents answers, which was then shared with the interviewees as a reflection of what had been spoken about in meetings. It should be recalled that the interview responses form one level of the research, with the primary

data drawn from the content analysis. In the event of the mind-mapping, the results shared reflected an atomistic part of the entire concluding theory to be drawn of users' experiences, mainly in the shape of value judgments and affordances of the site. In one instance, this procedure drew further comment from a participant who felt the interviewer had framed responses as too critical or negative of the use of online learning networks. This concern has been redressed by monitoring and evaluating the interviewee's use of the site: as a repeating student, interaction and participation increased prolifically between phases, with reasons for this increment sought in further questions. It was suggested that the increased use was reflective of personal maturity, motivation and confidence. This detail is included to show how the two forms of content analysis and interview complement understanding, with reflection by the interviewee to the process as 'member-checking'. What explanation can be given for the interviewees' ambivalence in interviews? If it is an issue of bias, it is a potential complication of the procedure, as both participants in an interview might mirror one another's language use. This is why dual methods may more rigorously support realistic representation *during* the research, rather than as *post-hoc* evaluation of such methods, as recommended by Morse *et al (ibid)*. As an extra attempt to engage member checking, interviewees were encouraged to contact the researcher after the interviews with anything further they wished to clarify or elaborate on.

All interviews were recorded by voice recorder and transcribed by a third party. In some instances, with the reticent and less confident younger group, different methods were enacted to draw responses – by asking the students to organise lists of priorities in terms of supportive mechanisms for successful study (which included Edmodo, the teacher, their self, an interesting syllabus, interesting or exciting resources), which the students negotiated as a group. In another instance, opening Edmodo up onto a Smart Board and looking through its content while talking aloud enabled greater reflection and recall of different activity.

The researcher is aware of the difference between this approach and others taken in interviews and the risk of bias associated to these different methods. A decision needed to be made in order to support younger and lower engagement students to ensure inclusion in the interview process and to support their communication via different means through the interview. This was partly because of shyness, but

potentially due to their status as arts students, so more visual and active contributions to communicating their experiences were attempted.

6.8.2 Establishing trust in interviews

The role of teacher as researcher was complicated in the interviewing stage; the nature of the relationships can become compromised by the students' tendency to try to give the right answers to questions or to view the teacher with distrust. This was noticed in preliminary interviews done at MA level (Scott, 2012) by the researcher. Certain steps were taken to rectify this problem here.

It was made clear at the start that the nature of the interviews was not to establish a truth or correct answers, but to gain their insights. The conversational approach helped assuage this problem to some extent. It also helped to 'induct' the students into a potentially uncomfortable situation where a voice recorder is placed before them, by showing some awkwardness with the device, checking it was working and making them at ease to the general situation. The interviews were relaxed and on leading in, students were guided to discuss their recreational use of social media for a short time with the interviewer allowing them to lead and describe habits online, time spent logged in, numbers of friends: questions that ground the interviewee. This type of 'Grand Tour' (Spradley (1979, in Leech, 2002) question helped establish rapport and integrated data about participants familiarity and access (how and where they access; what its used for; what they do simultaneously to logging-in; how these form part of friendships or communities compared to real life) with social media, establishing rapport before leading towards the use of Edmodo, making it easier to draw comparisons or differences in the platforms to the conversation. The context of the interviews was also important: in order to disrupt the teacher-student power dynamic as far as possible, interviews were all held after the course finished and either in a coffee shop within the college or in studio spaces where the students felt more composed, but which were unfamiliar to the teacher. With more shy, less confident and articulate students, a sense of trust and openness was built creating a group interview, whereby their answers could be checked against each other.

6.8.3 Phase One Questionnaires – Initial Coding and Selective Coding

Pre-determined questions were arranged as questionnaires with the aim of receiving responses from as many students as possible due to the limited access to students at the course end. As explained, interviews were held after the course end to allow the

students to focus on their examination as ethical and to try to reduce the impact of the researcher's position as teacher in comprising bias in answers to the questions. The questionnaires were a first attempt at interview and were chosen because the students could take time to complete them and reflect on the answers and also to save time with transcribing answers. In the first instance of this, the interviews did not generate a sufficient depth that was sought, so this process was changed in the second phase to face-to-face semi-structured interviews.

Initial coding was applied to the answers in a similar method to the content analysis, i.e. by annotating with comments onto the Microsoft Word documents that came back as questionnaire responses. These codes were then clustered according to Selective Coding to identify categories across the responses to the set questions and to reduce the data (Miles and Huberman, 1994) into themes. To stay 'immersed in the data' this coding analysis was done straight after the course ended (June) in each phase.

6.8.4 Phase Two interview analysis

Interviews were organised with invitations extended to several participants from the different age demographics (adult students/cross-college students) and different scales of use (high-engagement /low-engagement).

As face-to-face semi-structured interviews, the questions were less pre-determined than the first phase, since the format aimed to be conversational, yet more in-depth. A set of questions was arranged based on memos, themes from the content analysis and the previous questionnaires. These were presented to the study supervisor as an overview and given approval as in line with the research questions. In the context of interviews as informal conversations, students occasionally tended to discuss these themes without question prompts, allowing further drilling into the topics. The interviews were recorded, along with notes made during them and a sketch of a mind-map of the conversation topics arising from answers was shared with participants for accuracy.

6.8.5 Phase Two Interview themes clustered

The coding followed the same process as with the questionnaires (Open Coding and then Selective Coding); categories were designated as:

- Perceptions of social media generally (i.e. not exclusively linked to Edmodo)
- Perceptions of student community

- Perceptions of general utility of Edmodo for learning (affordances)
- Self-identity as a student
- Perception of relationship with teacher through Edmodo
- Perceptions of Edmodo

This last was broken into sub-categories of

- Positives of Edmodo
- Negatives of Edmodo
- Other uncategorised

Some of the codes were put into more than one category as perceptions. These were bundled and organised as

- HEUs experiences and impressions
- LEUs experiences and impressions
- Adult users experiences and impressions
- Cross-college experiences and impressions

Having the data organised in these ways allowed better visualisation of the mass of data, which allowed for comparison of the separate strata.

6.8.6 Constant Comparison

The repeated format of the analysis methods repeated across two years with four groups that shared similarities (adults/younger (cross college) students allowed for comparison to be made between the different groups and members within them, allowing anomalies in behaviour to be identified. Glaser and Strauss (1999) explain constant comparison as involving the

- Identification of a phenomenon – In this study, the phenomenon is ‘online engagement’
- Identifying properties (structural or process features) of the phenomenon (which was achieved through the content analysis and interviews)

The next stage is to engage in theoretical sampling.

There were diverse comparisons to make with such a variation in methods. These are listed here:

- Comparisons between the perceptions of students' functions of Edmodo and the actual ways it was used arising from the content analysis
- Comparisons of adult students to younger, cross-college students activity (use of Edmodo in terms of functions; communications made as interpreted to the LTCA; range of affective self-disclosures)
- Comparisons of high-engagement and low-engagement users ways of using the space
- Comparisons between the above demographics arising from interviews (attitudes towards the technology; attitude towards the community of learners; perceived affordances of the technology)

Finally, the coding of teacher to student communications was made as a separate strand. This resulted in a useful set of data to compare the ways the platform was used and the types of communication between teacher and student. These results are bundled into data representations in the following tables. Representations of what the teacher does are taken as a focus on the institution and the syllabus as object of the online space, since that is the primary function from a teacher's point of view.

6.9 Summary

This chapter has outlined a rationale for the use of the different research methods as fitting with the study aims and the Interpretive inquiry paradigm taken. It shows how an emergent and adaptive research design was better suited for the iterative nature of the study and its research questions and how the principal data collection led from a random sample for questionnaires in the first phase to a more purposive sample in the second phase conducted as semi-structured interview. An explanation of forms taken from the social network for the content analysis was provided.

Some difficulties in the process and subsequent decision-making is explained, including attempts to control bias and ensure ethical security. A discussion of how Lincoln and Guba's (1985) naturalistic inquiry principles shaped the research in terms of credibility, transferability, dependability and confirmability made in the previous

chapter was supported by a discussion of the different methods that were taken to ensure these principles were met: the use of memos and vignettes in an audit trail, the support of interviews and content analysis with a constant comparison and the drawing-in of potentially 'disconfirming evidence' in the shape of negative cases to create for thicker and richer description of the settings and experiences involved in the study.

The next chapter explains how the collected data outlined above were analysed in an iterative process, leading to themes and subsequent categories in order to generate answers to the research questions. This leads to findings that began to emerge from the data in the shape of Substantive codes and Selective codes were collated and separated to create student profiles and begin a process of theory development in the subsequent chapter.

Chapter 7 Methodological Approach: *Data Analysis Procedures*

7.0 Organisation of the chapter

The previous chapter showed how the data collected consists of artefacts directly from students in the shape of posts made to the Edmodo wall of activity, comprising of words (in the form of messages to their peers or teacher, questions, answers, comments, etc.) and potentially images and videos, all of which lend themselves to a social community of learning. The other main strand of data was collected in two forms of interviews: questionnaires and face-to-face, semi-structured interviews. These methods are represented as qualitative in nature and support the Interpretative inquiry undertaken.

This chapter explains how the data that was collected was arranged and analysed using an inductive process. The methods of analysis are framed with a rationale supplied for the overall approach taken in this study for the study questions. To help the reader, data representations, as recommended by Miles and Huberman (1994), are included which show stages of findings generated, with further discussion applied and labelled as such. This is particularly pronounced in the separate section discussing the Selective Codes (7.2.3), where an explanation is provided for the names attributed to the binding selective codes, which helped with data reduction from the huge amount of codes generated during Open Analysis. Selective Codes are discussed with relevance to the separate content analysis treatments (Affective coding, LTCA coding and Community of Inquiry – social presence coding) and combined with references to interview responses and observational memos to show how a conceptual model was gradually built from stages of analysis.

The chapter starts with a discussion of the originality of the design procedures taken, before showing how the Open coding resulted in substantive codes of common use; this is followed by a discussion of the use of an Affective coding analysis, before discussing the LTCA coding. Mapping of the LTCA categories is explained in 7.2.5, a use of Andragogical categories compared with posts (7.4.1) as data clustering, which finally leads to an explanation of how Student Profiling (7.4.2) was made from the mass of data, before explaining the methods of analysis arising from the interviews.

7.1 Originality of the research design

A means was needed to design a theoretical approach that could interrogate the data for communications that reflect stringent pedagogically informed practice aiming to lead from engagement towards self-determination. Partly, this is an attempt at discovery of traces and elements within the data arising from situated learning spaces where “participation, affinity and identity” are thematic (Potter and Banaji, 2012) of such contexts, and as Merchant (2012) states, research in these areas can too often lead to description rather than theorising (in Potter and Banaji, 2012: 2). Barden (2014) presents a case for a consciously complex combination of methods in order to create thick descriptions of the “messy reality” of digital technology use. In this spirit, a combination of theoretical coding was used to conceptualise the separate empirical codes (from the open/substantive, selective, affective and LTCA strands of analysis) into an emergent model. As such, the LTCA communicative actions were used as a methodological stance and applied as representing codes for analysis when interpreting the content of students’ posts in the network following the selective coding stage.

Silverman (2000) proposes that for research to be original, it may help to develop a concept or methodology. As shown in the previous studies section (4.4), certain standard means of analysis have been used in similar studies of social networks. In those studies, how knowledge is constructed tended to be the focus of the research, deploying methods including Gunawardena *et al*’s (1997) method of content analysis in computer mediated communication (CMC). That method, framed around knowledge construction, is particularly appropriate or supportive of discourse in higher educational contexts and has a rigid framework based on specific phases of interaction. With this population, interaction based on knowledge rarely transcended Phase 1, in which students share information or give opinions, but in threads they seldom agreed or disputed other participants’ claims. Therefore, it was anticipated that the identification of knowledge construction as an element of learning in Higher Education CMC did not fit with the model of teaching and learning for this demographic and level.

The method has often been employed in mixed method studies, where the content analysis is complemented by statistical quantitative procedures. The point is made here because, while a frequency count was integrated into this research (to identify

common open codes), this data is not drawn out as a statistical representation. Further, In this case study, an attempt was made to construct 'community' in line with design-based research, described by Collins 1992 (cited in Wang and Hannafin, 2005) as stages of design, enactment, analysis, and redesign. Although the population samples are small in the research study, the focus has been on longitudinal study with four groups across two years the data is rich enough to meet the call of Wang and Hannafin (*Ibid*) to explore attitudinal perceptions of students to technologies. During analysis, the integral characteristics of social, cognitive and teacher presence in Garrison *et al* (2000) Community of Inquiry model and the issue of 'peripheral participation' – 'lurkers' in these communities – may be complemented by attention paid to 'emotional presence', the functions and affordances of social media, an acute focus on validating the important area of *lifeworld* to realise self-determination.

Various stages of analysis support an overall Continuum of Engagement which aims to conceptualise the varying strands of analysis and represent participants' contributions. The Continuum reflects a sense of momentum occurring within the network in terms of activity represented from low-engagement uses experiences to high-engagement uses, interpreted alongside experiences disclosed in interviews. The means of arriving at this Continuum is set out in this and the following analysis sections, where the decision-making at each stage is explained.

7.2 Coding

As a standard practice of analysis, coding is taken as a means of sorting and naming data, connected approximately to the issue under investigation, which here is 'Independent learning through social networks'. Newby (2010: 464) suggests three sources of codes:

1. A coding structure devised by others
2. Devise a coding system before analysis begins based on theory and existing knowledge – sometimes called concept mapping.
3. Allow a coding structure to emerge from the data

The influence of theory and existing knowledge aligns this study to Point 2 (above). Grounded Theory advocates the bracketing or marginalising of existing knowledge that may have been informed by preliminary literature research, so that it doesn't

contaminate an initial interpretation of data (Corbin and Strauss, 1998). As explained in 5.5 (Grounded Theory), this is felt to be unrealistic given the way this reading has shaped the objective (to create an online Community of Practice (Lave and Wenger, 1991) and Community of Inquiry (Garrison *et al*, 2000); moreover, some affordances are actively sought in analysis of the community activity to determine what it is happening, so the conventional approach of Grounded Theory is rejected in this research.

However, some methods from Grounded theory are utilised here as supporting Inductive stages: Open/initial coding and selective coding. These subscribe to point 1 above, although in making an iterative analysis of data it became apparent that a theoretical lens was supportive of the second phases of analysis, which fits with point 3.

7.2.1 Coding stages

A brief summary of these stages is now provided, before more discussion is given of how these were complemented with other data from analysis and memos to create a meta-level of analysis.

Open (substantive) coding was the first treatment of the data; usually this is an unmotivated looking, though some requisite themes from the literature review were actively sought in this first analysis to ascertain affordances of use as they emerged.

The resulting Open codes were then categorised to Selective codes with the overarching grouping theme 'Thresholds of student engagement in (remote) online contexts'. More focused analysis was then made in three subsequent analytical treatments. This followed a similar pattern of reading and re-reading with the intention of meeting Charmaz' (2006) direction of immersion. These stages of analysis were:

1. The socialisation elements from the Community of Inquiry
2. The emotive/affective responses by members, and
3. A closer theory-informed analysis of codes fitting to the corresponding Learning and Teaching as Communicative Actions theory. This mass of data was separated, the most commonly occurring codes were counted and clustered against profiles of the individual learners, who were characterised as 'low-engagement users' or 'high-

engagement users'. Interviews were coded in a similar fashion, but with less acute focus applied, using only a substantive/open coding, selective coding and affective coding to organise the data.

The stages of analysis for data were:

Phase 1 Content Analysis i and ii and Phase 2; Content Analysis iii and iv

Content Analysis of samples September – December from Phase One Case Studies, used:

1. Initial/Open coding

This resulted in a huge arrangement of substantive codes and the identification of self-disclosure, resulting in

2. Emotional/affective focused coding

As the second phase began, coding resumed from September to December (Content Analysis iii and iv) using procedures of Initial/Open coding and Emotional/Affective coding shown above.

Due to content being far richer in Phase Two, the collection period was extended to April, and, due to this decision, the researcher then returned to the Phase One data and looked further at the data there that ran to April.

Between April and June,

3. Selective coding and thematic categories were drawn across all groups of both phases and then
4. LTCA coding was applied.

Iterative stages undertaken and the period of adoption for stages were:

- *Counting codes (frequency count) and types of posts applying these to the individual students* – after open coding of all content analyses was done.
- *Counted and categorised affective responses* – after stage 4 in each phase shown above.

- *Classifications of high- engagement users and low-engagement users: made after phase 1 analysis was completed and repeated for phase 2.*
- *Individual profiling of student types in terms of types of posts; affective responses disclosed.*
- *Mapping of Selective categories to Andragogy stages – after all stages of phase 1 analysis were completed, then repeated after phase 2.*
- *Counted LTCA codes, separated those shown for Adults/under-19 groups*

Finally, the interviews were coded with the following steps:

1. Open coding
2. Selective categorising
3. Affective codes

7.2.2 Open Coding

With Open Coding, Corbin and Strauss's (1995) recommend analysing a first 'small' sample of data (Silverman, 2006) which was the Sept – December data from 2013 of the Phase One adult group and the Phase One Cross-college group. Open (or Initial) coding has been called a Grand Tour (Saldaña, 2009), and is designed "to remain open to all possible theoretical directions indicated by your readings of the data" (Charmaz, 2006: 46). Corbin and Strauss (1994) suggest that in a Grounded Theory approach, a *tabula rasa* is taken to this stage of analysis, where the analyst aims to separate pre-conceived notions and pre-existing knowledge from the research as far as possible. As explained in Chapter 5.5 (Grounded Theory), this approach was not deemed possible. Rather, some elements of technology affordances identified in the literature review (Crook, 2012) were actively sought in this open coding stage. These pre-determined or *a priori* codes were specifically:

Affordances of:

- Publication (of views, opinions, declaratives, answers, work)
- Inquiry (in the shape of questions posted to the teacher or peer-group)
- Mobility (i.e. access to the site made remotely from the college, outside of classroom hours)

- Collaboration (potentially shown as peer-support, sharing ideas and resources or as a response to an activity that is teacher instructed. Further breakdown of this wider set of codes would be explored where it arose)

While this seems contrary to open coding procedures, these codes were only a consideration for a motivated reading of the data as affordances of the technology, rather than based on the types of communications made by students. In the event, the common codes that arose from this were publication and inquiry, as explained later.

The flexible procedures accordant with an inductive process were retained in order to adhere to an 'open' interpretation of the data by the researcher. This resulted in a mass of codes, which were tagged and annotated using the 'comments' function on Microsoft Word, where the data had been imported. Simultaneous to the tagging was the recording of memos into a log to record thought processes of how these codes started to explain behaviours. This first stage of Open Coding resulted, unexpectedly, in a large amount of emotional, or affective, statements, which were clustered into the general theme of *self-disclosure*; given the high frequency of these types of declarative posts. They were separately collated in a subsequent analytical treatment as a more focused exploration of affective self-disclosure, explained in the Affective Coding (7.2.4). The open codes were counted, the most common frequency of codes were separated as Substantive codes and categorised as Selective codes as explained in the next section.

Following Miles and Huberman's (1994) recommendations, data arising from open coding then went through stages of

- Data reduction
- Data representation
- Conclusions

7.2.3 Selective Coding procedure

Conventionally in Grounded Theory procedures, Selective Coding follows Open (substantive) Coding (Corbin and Strauss, 1998). Selective coding groups substantive codes into broad category clusters (Newby, 2010); which acts to reduce large numbers of codes as a zoom lens narrows to essence (Silverman, 2000). Charmaz

(2006) describes this stage as a grouping into categories, whereby relationships or links can start to be formed for the creation of theoretical formulations as data representation (Miles and Huberman, 1994).

A first stage of organising open (substantive) codes and their Selective codes are represented in Table 6 below. Due to the frequency count, the open codes were the most prominent types of activity in the network. These were ordered to fit an emergent continuum of online engagement – as explained in 9.2 (Selective Category discussion) by scales of activity shown in the content analysis, e.g. at the lowest stage of engagement it was identified that students ‘notified’ the teacher, while higher stages of engagement were reflective of more involved use of the site. As an example of the ordering process, ‘Ownership’ is positioned first, since the immediate primary action is to set up an account (though directed by the teacher). However, ‘ownership’ as a general theme becomes more nuanced as activity increases, as all posts reflective of action may be interpreted as ownership of the network. The decision was taken that ownership was reflected by posts that were contributed irrespective of the teacher’s activity, i.e. non-instructed independent negotiation of the site.

As part of the iterative process, the stages represented below were reordered following further stages arising from analysis to gain insight to different degrees of use by LEU/HEUs. From there, other actions stem – or not, depending on the student’s propensity for participation. Therefore, the organisation of the selective codes went through different procedures, as supported by other forms of analysis in the shape of Affective Responses and interview responses. In the first organisation of Selective codes, names were given in the left column to describe clusters of incidence in open codes. In later organisation, the table was enhanced by applying specific incidence of posts exclusive to low and high-engagement users, represented from the other strands of analysis to create a fuller picture of what activity takes place.

| | | |
|---|--|---|
| Directed use by teacher/Ownership of space | Uses informal language Makes posts without prompt | <i>"I have bought an older version of the film, actually spending my Friday night watching it.....do I get a badge now? Haha"</i> |
| Disorientation | Confused about what to do (learning tasks or understanding) About functions of site Teacher-dependence | <i>"Is this like a story we have to write"</i> |
| Self-regulating / navigation | Checking Organising Managing tasks Uses or requests resources Catching up aspect (Int. Code) | <i>"are we allowed to underline useful bit in our our copy of the book or not?"</i> |
| Inquiry posts | Questions about learning Wants to submit draft work Need for guidance | <i>"How many pages is your draft?"</i> |
| Readiness for learning | Planning ahead Joining up sessions Response to teacher and task-based activity | <i>"Have had a look through. will be a great help as I missed the lesson. Thank you"</i> |
| Socialisation | Peer-support Non-academic | <i>"pen drives are a student's best friend."</i> |

| | | |
|----------------------------|---|--|
| | Advice / strategic tips | |
| Sharing information | <p>Sharing resources</p> <p>Offering answers openly</p> <p>Posting sample paragraphs of work</p> <p>Others work as guidance (Int. Code)</p> | <i>"Have discovered the grammar monster website, which is quite helpful"</i> |
| Goal orientated | <p>Self-motivation</p> <p>Seeks recognition/validation</p> <p>Seeks confirmation</p> <p>Request for feedback</p> | <i>"Please can I have your email to send you my first draft of the What are your hopes and ambitions for the future question. Thanks"</i> |
| Enhanced | <p>Directed discussion on learning</p> <p>Sustains dialogue or discussion thread</p> <p>Situated (Pulling everything together in one place – interview code)</p> <p>Publication aspect</p> <p>Reflection aspect</p> | <i>"it engages the reader because the headline is conflicting to the image. The headline makes out that Clegg is under pressure "on the spot" but in the picture shows him in a calm and relaxed manner. this draws to reader to fully read the story to discover what is actually happening."</i> |

Table 6 Representation of main categories

A smaller and emergent strand was also a set of codes that could be interpreted as specific features of the technology itself, i.e. not communication – strictly speaking – but instances of ownership of the space by a member, such as personalizing with a photograph, or an ability to make a suspended comment (e.g. an answer made long

after a question was posted, suggesting a lag in the learning conversation, but an affordance that may be proposed as a *just-in-time* assistance of a static situated learning space).

7.2.4 Affective Coding Method

The Initial analysis revealed a large number of Open Codes reflecting emotional self-disclosure by students, so a means of specifically exploring and categorising these was deemed necessary. Saldaña's 'Affective Method' (2009) seeks to uncover participant's subjective qualities, including "emotions, values, conflicts, judgments" (2009: 86) so was applied as a follow-up, focused strand of analysis of the self-disclosures made in order to drill into instances of lifeworld revealed in the social network experience by members. According to Saldaña, while coding such material can result in a straightforward identification of emotional insight *per se*, values coding "assesses a participant's integrated value, attitude and belief systems at work" (*Ibid*). Saldaña explains how use of Values Coding is accentuated by distinguishing codes in the data between Value ('V'); Attitude ('A'), and Belief ('B'). Saldaña considers emotion as inherently 'felt' or experienced by the participant internally, while 'values' may warrant further exploration for detailed attitudinal affects in interviews. This focused treatment between emotional and values coding can therefore be of more focused use when looking at the intrapersonal (inner lifeworld declaratives) and interpersonal (between members) dimensions of individuals' experiences in the study. Coding of this type is useful for this type of content analysis with "...field notes in which naturalistic participant actions are documented" (2009: 90) as supportive of greater understanding and explanation of experiences. This was highly useful to the observational strand of analysis, with memos (See Appendices) recorded from blended uses of Edmodo. It was, therefore, used as a focused treatment of attitudes towards the community and the course within the network by assessing perceptions of 'ambivalence to' or 'support from' other members when analysing interview transcripts.

Cleveland-Innes and Campbell (2012) have used the Community of Inquiry (Garrison, Anderson and Archer, 2000) framework as a tool of analysis for emotional presence, but their focus is more on emotion and less on 'attitude' or 'belief', as located in observations and interviews, making Saldaña's methods more suitable. In an iterative sense, instances of self-disclosure, whether emotional or attitudinal statements, were

purposefully sought in Phase Two treatments of coding following Open and Selective coding.

Rientes and Rivers (2014) show the critical role that emotions play in learning processes, particularly with regards to motivation and self-regulation that are central to this study. Approaches to emotional presence in online discourse investigated by Rientes and Rivers, show that, while cumbersome and labour-intensive, the application of content analysis to code online speech with manual annotations focused on emotional presence has precedence as a data analysis method undertaken by researchers but is an under-explored area. How emotive analysis is undertaken is complicated by the absence of visual cues, but language by users can be seen as a helpful instrument of analysing users' emotional experiences.

As explained, emotions were prevalent in the Initial, substantive coding, particularly where adult groups interacted, so a treatment focused on the context or incidence of these disclosures and how others responded was adopted. An attempt was made to apply a V (value), A (attitude) and B (Belief) categorization, with comments made in accompanying annotation. This was done in order to explain the consideration of the hermeneutical interpretation, since merely classifying the comment as an attitudinal response, for instance, limits the interpretation and discussion arising from the analysis. The emotive coding was a way of sifting through the data and segmenting sub-themes into 'Emotional self-disclosure' as a category. These were collated separately, coded as types of emotional presence, counted and attributed to student profiles. This theme was then explored further in interviews to explore the reasons for self-disclosures and further complemented by memos of observations in lessons that were attributed to the student profiles. From these procedures, a characterisation of 'student identity linked to Edmodo was mapped from interviews and self-disclosure codes. This mixture of methods to analysis helped to create thicker and richer descriptions and ways to explore the phenomena of 'online engagement' from different perspectives and theoretical considerations. A range of emotions with examples are shown in Table 7 below.

| Category and explanatory note | Examples of open codes | Example post | Researcher's comment |
|---|--|---|---|
| <p>Self-disclosure of emotions</p> <p>*These were prolific in the space, so were clustered and counted separately as a stage of analysis</p> | <p>Worrying</p> <p>Gratitude</p> <p>Self depreciation</p> <p>Struggling</p> <p>Self-motivation</p> | <p><i>"I tend to panic and write anything and everything in exam conditions."</i></p> | <p>Posted openly to group without expressing request for help. Peer and teacher respond with supporting advice. Student replies with appreciation. Emotional disclosure becomes normalised and social binding of members accrues.</p> |

Table 7 Examples of self-disclosure codes arising from the Affective analysis

Again, the incidence of these were compared and mapped to the Substantive and Selective codes and complemented with interview responses to explore attitudinal responses to compare experiences of using Edmodo between low-engagement and high-engagement students. Below are visual representation maps of affective codes between agent (student) and goals. These are presented to illustrate how theoretical construction came about following these analysis stages, showing how affective disclosures are key expressions to participation thresholds for some members based on decision-making.

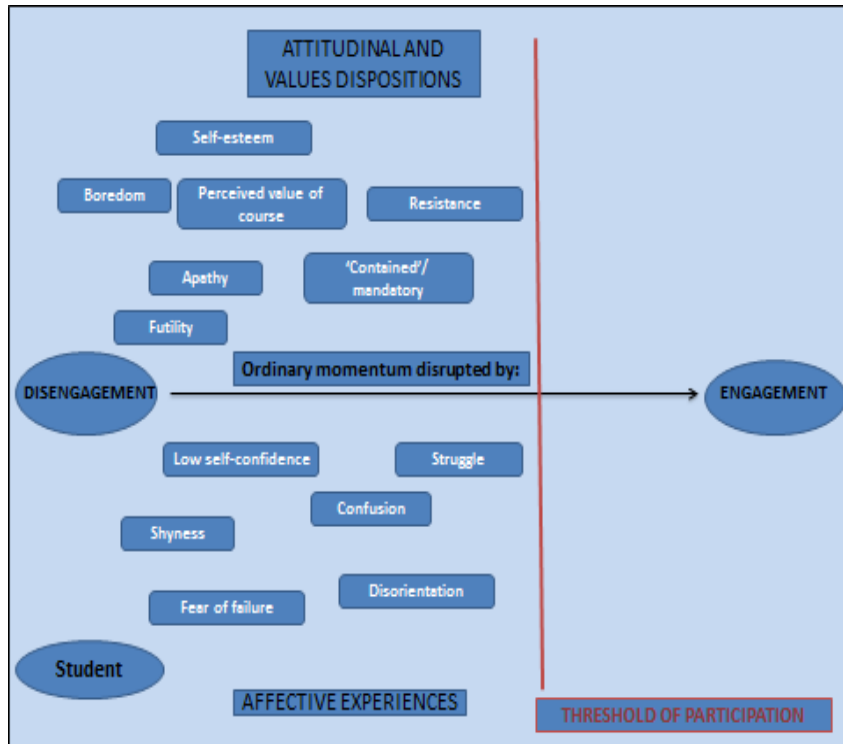


Figure 6 Map of Ordinary momentum disrupted by attitudinal/affective dispositions

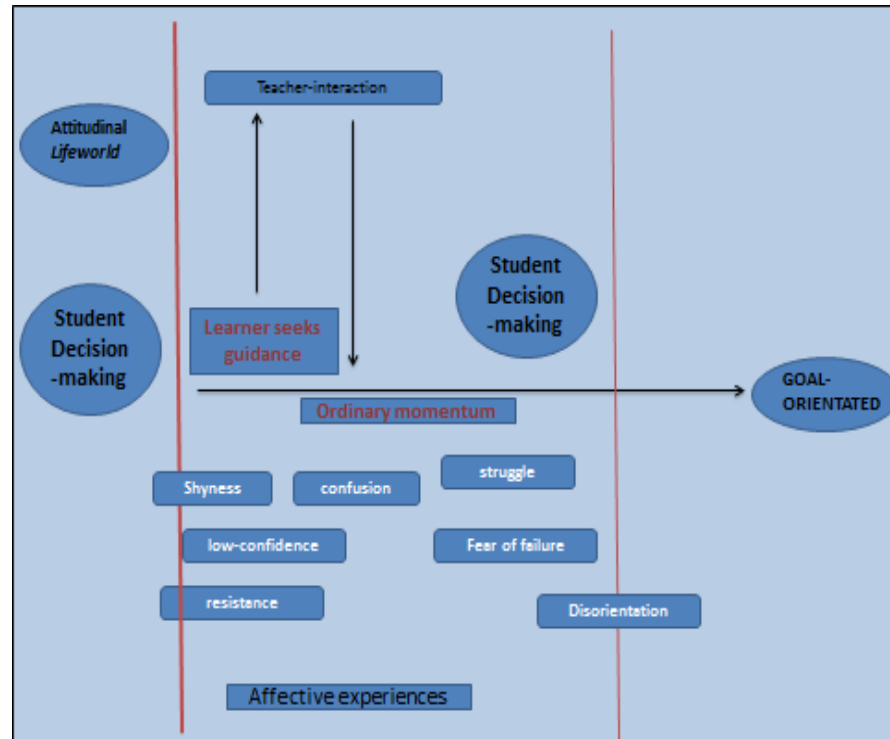


Figure 7 Map of student threshold of engagement, with affective disposition experiences

The two maps (Figures 6 and 7) represent a student's online experience, with the thick red line representing a threshold of participation in and to the online network. Progression in Figure 8 (p.174) is inhibited by a 'decision' threshold of participation and engagement to objectives, which consists of compromising personal attitudinal barriers towards a transformed disposition. Overcoming the (red vertical) threshold procures a process of momentum, though this may be hindered by affective experiences, shown below the horizontal arrow. An educator can normalise these in student's learning experiences where visible or acknowledged in network discussions.

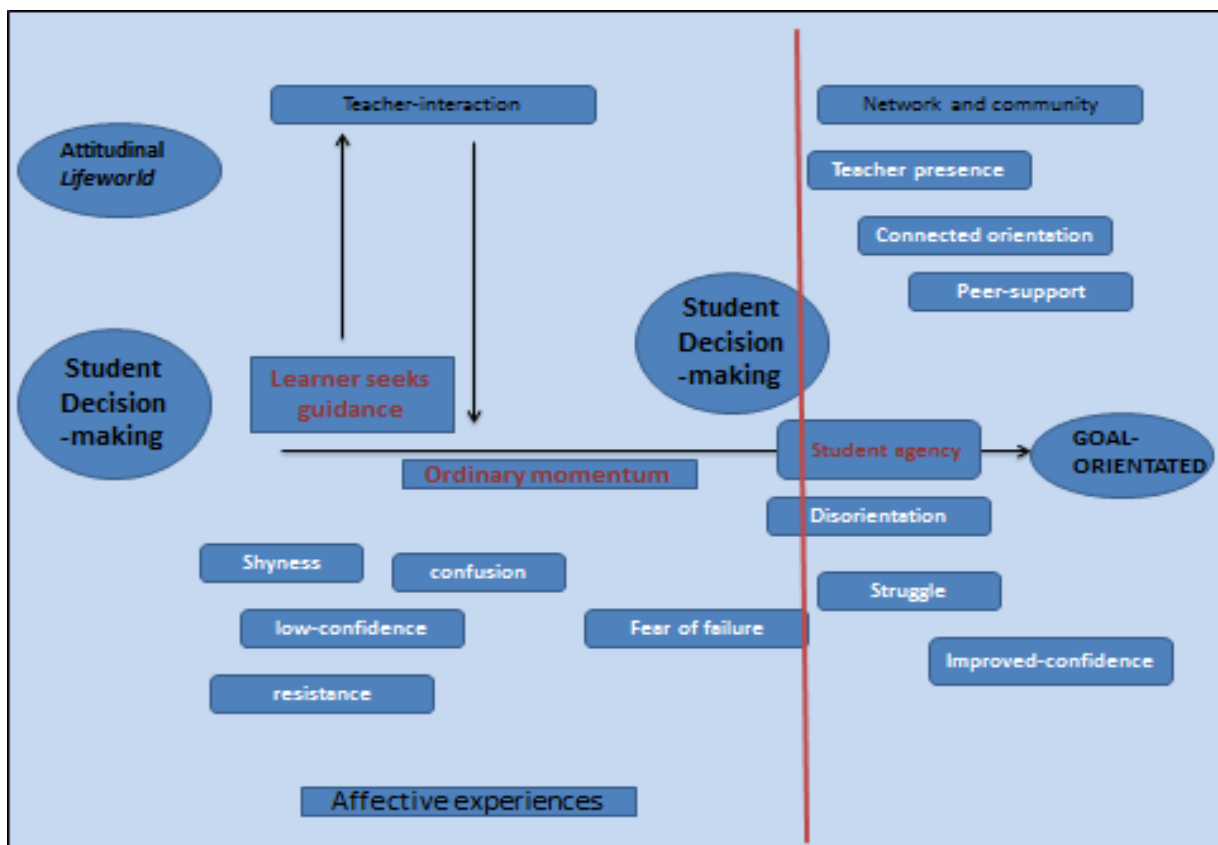


Figure 8 Map of student's decisions at entering the network threshold and utilising 'agency'

The learner makes decisions to integrate further with the next threshold of participation in the network, where a community of similar experiences can be observed and support may be found through peers or a teacher presence. Where the student takes actions (posts of any kind), agency and momentum align and improved confidence may stabilise. The network provides a series of opportunities for agency as decision-making, for example whether to log-on, whether to post a response to a thread, or whether to view a resource. Taken positively, these decisions can impact on autonomy in order to integrate students into the community-network, as this appears to impact on self-determination (Ryan and Deci, 2000). Agency (students' actions) stems from interactions in network and may induce proactivity (looking forward, being self-regulating) and reactivity (reflecting), primarily with the teacher and latterly, when socialised agency takes momentum, to the community. A sense of being 'overwhelmed' was cited in interviews with LEUs when confronted (after logging-on) by extensive activity (from teacher and others). However, HEUs sought support, exploiting the network's affordance connection to the teacher as assistive and

orientating to facilitate their goals. For those students, there appears a potential to manoeuvre students towards a *momentum* of activity and objectives, regardless of the affective experiences that may accompany learning. This was identified through coding as a higher level of activity in network engagement (shown as affordances utilised through agency, i.e. resource-sharing, offering tips, asking questions). Intervention is needed in the network where student communicative actions reveal distress or difficulties, as this can lead to disengagement. Unfortunately, it may only be feasible when a student willingly offers a declaration of struggle, which not all students are capable or willing to do, resulting in a problematic silence.

Potential consequences to 'silence' are shown on the graphic below, which develops from LEUs' experiences and perceptions. In this graphic, the Edmodo space on the right is perceived as a separate *other* entity to self, where objects can be situated through activities and the LEU is outside or peripheral to action. As a more complex picture it begins to show identified *thresholds of participation*, beginning with creating a profile – an approximately low threshold expected of students, consisting of adding name and e-mail in the first instance to register to the network.

A fuller illustration of how the map was compiled from codes is discussed in 11.9 where the theory of Social Media Fatigue (SMF) is proposed, the map is returned to, and is presented as the basis for a conceptual clustering of students' disengagement experiences. The discussion there is supported by the complementing identification of issues arising from interviews with LEUs. Here, the discussion is limited to visual representation of the 'symptoms' of network behaviour and inert actions drawn from the content analysis, but the implications are presented as perceived: student silence and inertia to participate is problematic, not only methodologically, but socially and academically and the network starts to represent a metaphor of disengagement.

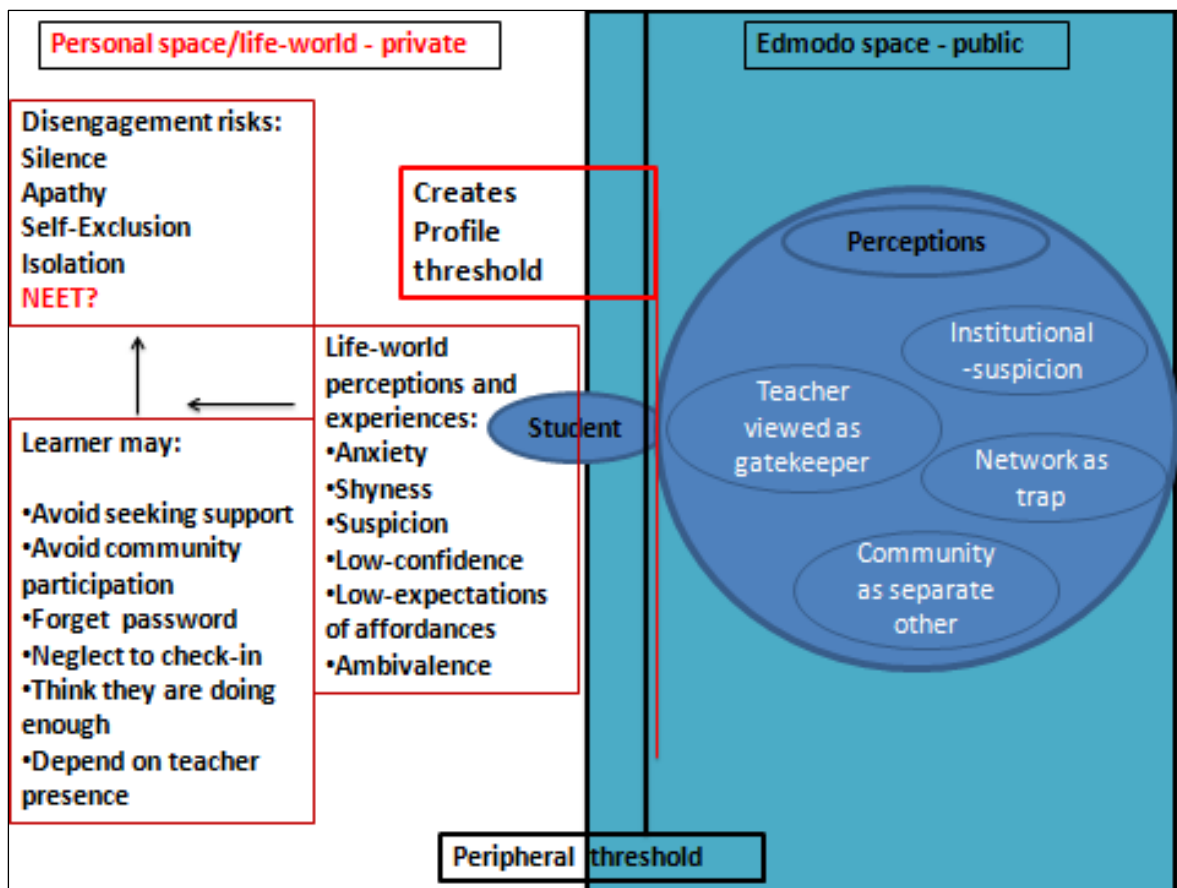


Figure 9 Map of Disengagement experiences and indicators

With LEUs, a sense of the teacher as central to the space and their selves as peripheral was normal, shown in interviews with students linking use of the network to waiting for the teacher to post: the space is viewed as an institutional tool, even “a trap”, and a common view of ambivalence was expressed towards the community as a separate other. In Figure 9, actions in the *lifeworld* of the student are represented on the left as a private, guarded world – contrary to norms of Web 2.0 of open, social and shared. Not all students who don’t interact are considered at risk of the disengagement symptoms listed, nor leading to the overall disengagement in the upper left. Indeed, some students who rarely posted could be regarded as ‘low-engagement’, yet perform at a high level, but such students were an anomaly to the demographic and only came from the Adult populations.

In the graphic above, the red flag ‘Creates Profile Threshold’ is the basic entrance action to a network. LEUs sent recurrent, brief messages through the network to the teacher (perceived as gatekeeper) coded as ‘notifications’ of absence or lateness. These notifications represent nominal, peripheral activity and are symptoms of

disengagement when repeated, especially when not framed with further communications, such as 'intent' or 'finding out' messages (of what to do). 'Notification' instances by HEUs were posted with apologies and often with declarations of '*intent to action*' or '*inquiry of what to do*' codes, as well as '*what was missed*' queries and sometimes affective disclosure of struggle – overall, announcements of lifeworld that enable support.

7.2.5 The LTCA coding stage as a theoretical lens for Selective Code 'Lifeworld'

In aiming to show how informal experiences contribute to formal learning contexts, Habermas' (1981, in Warren and Wakefield, 2011) *lifeworld* concept is implicit as a theme to identify posts to the network that give insight to students lives not normally drawn into the learning conversation. Separated as it is into specific classifications of communication in the developed Learning and Teaching as Communicative Actions (LTCA) theory (Ibid), it was conceived that these components were feasible as a framework with which to evaluate how and why these were made in a social network. This was done principally as a means to understanding engagement as a central concept, understood as behavioural, emotional and cognitive (Fredricks et al, 2004), but enhanced engagement would be represented by additional communications, reflecting ownership of the network, that draw from the life experiences of students.

According to Habermas' Social Theory, communication makes sense of the world but is 'colonized' in the social sphere by mediated rules ('communicative action') that become normative standards, aimed at keeping society integrated. This colonizing mediation can be seen as a compromise of *lifeworld* discourse. In 'lifeworld', Habermas utilises a term that means the ways in which the world is experienced by individual subjects away from and outside of institutional influence, assumptions that are shared as values and common understanding interacted. *Normative actions* are standards expressed as rules and regulations, which result in accepted, or rejected, behavioural standards. This is in common with Situated Learning, where a shared literacy is highly context based and positively influences on identity (Greenhow *et al*, 2009). Here, the network represents a normative action in itself, as a resource recommended to students for participation in, with the action immediately presented to students for acceptance or rejection.

It may be argued that an online social network and community represents a microcosm of the social world reconstructed online in a dialogical ecology, a '*participation metaphor*' of learning (Sfard, 1998, in Paavola and Hakkareinen (2005) described as a "view where the interaction with the culture and other people, but also with the surrounding (material) environment is emphasized." (2005: 539) In the socialisation element of a network, informal communications may disrupt ones where assimilation to micro-societies, such as a Community of Practice, is exercised by communications that aim for colonization. For instance, how power is exerted in the classroom through the directed language of a teacher creating normative exchanges may not be reflected in an online space, where such normative relations are not replicated. In keeping with views of social media as equalizing, democratic and as empowering the personal agency of learners as co-opted community owners of the space, *lifeworld* (as the personal reality of subjects) and the components attributed to communicative actions emerged as a legitimatising theoretical lens for activity within the network. 'Enhanced' used of the online network may be represented by codes used by students that reflect the various domains, which are explained below.

The drawing of personal experience into responses from user's own knowledge fits with hypotheses of the concept of Andragogy (Knowles, 1970) as a more student-centred approach to learning, which values the social and personal elements intrinsic to learning. *Lifeworld* is reflected in the LTCA by Dramaturgical communicative actions. This was felt to be a type of theoretical code that could show an increased sense of personalization and ownership of the site by students making declarations of informal knowledge less closely aligned to a curriculum and personal disclosure of *lifeworld*, highlighting subjects' experiences of learning and revealing internal impressions of reality and views of the lived world. Since these extend beyond using the network for formal learning objectives and may integrate learners' experiences, they constitute a reclaiming of the network from formal object, with students applying qualities and characteristics reminiscent of social media.

In order to make use of the LTCA, its four strands were extrapolated as theoretical codes to a next stage of analysis. This was done to contribute to the overall theoretical development of a model that could explain posts and activity in the situated learning space as constructive of knowledge by users. Clearly there will be many instances of the LTCA categories made by the teacher in the space, as they are claimed as a tool

of improving communication for learning through social media (Warren and Wakefield, 2013). However, the main reason for using this as a separate strand of code is to identify *Constative* and *Dramaturgical Actions* as representative of an enhanced discourse in the space, so examples of these as interpreted through users' comments was drawn out as a next round. Examples are shown below.

| Category and brief definition | Explanatory note | Example post |
|--|--|--|
| <p>Normative actions</p> <p>* Mostly these are communicated by the teacher, as set rules and behaviours.</p> | <p>It may seem uncommon to find students assert the governing rules of the space. The example shown arises from a 'small group' within the larger one, where a student made a request to access others answers, thereby creating a rule of operation (and hence: ownership) in the space.</p> | <p><i>“will we be able to see all views soon, it would be interesting to see the observation of other characters also”</i></p> |
| <p>Strategic actions</p> <p>*These are made as imperatives of what to do, i.e. 'complete this by Friday' so again are usually made by a teacher</p> | <p>In the case on the right, the teacher asked the students what they needed to do to pass the assessment, thereby using the Strategic Action to reinforce awareness of how to succeed in the unit. Any instance by students reflects awareness of objectives, and also represents peer-support as the message is relayed openly to the community.</p> | <p><i>“Post your responses below before next week, please” (example made by teacher)</i></p> <p><i>“use quotes and reference them to page number or chapter I am not sure what else I need to use. I'm presuming correct use of language and grammar plays an important role?”</i></p> |

| | | |
|---|---|--|
| <p>Constative actions</p> <p>*These are claims of truth, which lead to rejection or confirmation discourse</p> | <p>In Edmodo, these were often posted as discussion threads, mainly reflective of adults or students with confidence and stronger ability, but they make for rich communication as people propose their interpretations and ideas. This may be in the shape of an opinion or view.</p> | <p><i>“I don't think that Gatsby wanted to create the rumours and speculation that came with his fortune.”</i></p> |
| <p>Dramaturgical actions</p> <p>*Expressions of understanding which reveal something of the <i>lifeworld</i> identity of the subject</p> | <p>In the example shown, insight is given to subjects own personal, informal knowledge. It may be that this is not directly relevant to formal assessment, so should be made clear in a normative action by the teacher, but the social element of the situated learning space allows for integration of these to informal discourse.</p> | <p><i>“Even in this day In age people chose a partner for their money and looks.”</i></p> |

Table 8 LTCA categories linked to Posts representing Actions

The table above shows example posts coded to the four strands of the LTCA Theory, reflective of intent and ownership and declarations of formal and informal knowledge brought to the network space by members

7.3 Summary of coding

By now, the data had been treated to this emergent and flexible methodology with the separate strands of reading and the processes of clustering comparisons to organise the data. In a sense, this helped create a layered Interpretation that considered theory, human characteristics and types of features being done with the technology, in line with the approach outlined from the Activity Theory (4.2 - Mwanza, 2002).

As shown in the clustering tables of post types here, the ‘posts’ do not easily translate as ‘affordances’ outlined in the literature review or purely focused on learning objectives. A large part of the functions of the site appear social and regulatory, which may be considered an unsophisticated means of using the network, but reflects the level of realism with which this analysis was undertaken, i.e. that all posts are recorded and counted as the sum of parts of users’ experiences.

7.4 Further clustering for data reduction

7.4.1 Using the Andragogy categories as a lens to posts

A two-step process was made with the mass of codes arising from these analyses. The first was clustered into a graphic as a data representation (Miles and Huberman, 1994) of codes interpreted as the categories of Andragogy (Knowles, 1970). This graphic has been formatted under the headlines below for richer discussion. This was done to illustrate potentially higher-order examples of engaged and mature Edmodo use. It was then possible to diagnose thresholds of engagement showing, for example, which posts manifest ‘readiness’ and the developing maturity of learners to become self-determined, as understood in Heutagogy. Despite earlier criticism of it, applying Knowles’ Andragogy categories provided an alternative lens of understanding purposive use as a treatment for reading the network activity.

| Andragogical category | Represented in posts: | Comments |
|---|--|---|
| Self-concept (gradual growth and developed personality) | Represented by posting links, or sharing own work; affective disclosures such as gratitude; uncertainty; increased confidence; desire for self-improvement | This was not exclusive to adults, but could be seen in high users among Under-19 posts, which included disclosures of intent to act, and occasional affective posts |
| Experience (life experience as a resource) | Characterised by lifeworld or informal comments | These reflect a personalisation and ownership of the space, socialisation posts, but were limited to high users among adults |

| | | |
|--|---|---|
| Readiness to learn (inclination to learn by themselves without being directed) | Self-management and organisation; submitting work for feedback, disclosures of intent; expressions of gratitude, doubt, worrying, frustration. | Among Under-19 students there were many instances of 'finding out what to do', which does indicate a need for direction but a will to find out and be proactively organised. |
| Orientation to learning (focused on application of subject material to real-world contexts) | Goal-orientated posts, questions about progression, exams | There are very few instances of application of the syllabus to real world contexts, but the course itself may be regarded as supporting real world application overall. |
| Motivation (Intrinsic motivations as behaviour) | Self-generated proactive posts (i.e. not responsive to a teacher's post and not 'notification of lateness or absence' posts; intent, 'finding-out' posts, contributions to discussion threads, affective disclosures of appreciation, gratitude, enjoyment and determination. | Motivation develops in time across the course, arising after confidence of voice is established. There were less clear instances of 'motivated' posts made visibly by Under-19 students, although some instances of some more motivated students showing this in Direct Messages to the teacher, asking for resources, feedback, etc. |
| Need to know (Adults look for the reason for studying something) | Posts didn't easily fit this category, as adults never questioned the relevance of topics online. Some questions asked how something is leveraged towards success, which is read as 'forward-thinking.' | Not exclusive to adults in the population as Under-19 students routinely questioned the need to 'know their own language' (as it was often articulated offline). This is not intended as pejorative, as in a defiance to comply, but 'a need to know' equates to <i>'make it meaningful to me.'</i> |

Table 9 Clustering of andragogy to network activity posts

The table above helps summarise what higher engagement looks like in terms of use and is demonstrated mainly by adults. For example, motivated students reflect engagement through unprompted (by teacher) proactive, rather than responsive, posts. Elsewhere, disclosures of appreciation reflect student engagement in terms of

learning being meaningful and a developing voice of confidence. Readiness is very clear, with self-organising behaviours shown by students 'finding out information'. *Lifeworld* communications demonstrate increased ownership of the network with students repurposing network action to serve their goals. Clearly, the prevalence of the categories are symptomatic of adult behaviours (discussion of this is returned to in the later 12.1 Andragogy Links discussed).

The second step in further clustering of the data, as student profiling, is explained in the next section.

7.4.2 Clustering of learners' profiles

The second stage was to separate all learners against the posts they made, counting their posts and categorising them in terms of engagement in order to generate identification to support the theoretical formulation.

By June 2015, all phases of content analysis were completed and a strong awareness was known of the learners in terms of their assessment results and classroom behaviours. This detail was included in profiles 'sketched' of the individual learners in the separate groups. The profiles also showed whether they were high-engagement, mid-engagement or low-engagement users of the site. Learners were listed by name and a classification of the types of posts ('themes') they had made was outlined alongside them. This was done in search of patterns for success as reflected by a sense of high motivation and engagement in the space. Although 'success' on the re-sit course was not sought as an objective outcome of this study, successful completion complemented the memos and learner profiles. As previously stated, a HEU was classed as a student who had posted multiple times onto Edmodo; a LEU posted more than once but fewer than five times.

Profiles were made for various reasons: firstly, to draw out impressions of how particular students used the site and compare their activity with observed classroom behaviours and motivations. As an early stage researcher, this was a helpful means of organising the mass of data into clusters and a procedure, therefore, for reducing the substantive codes from the Initial stage into categories fitting with the different age groups. It also allowed a greater means of understanding the coding process as fitting emergent research questions, as well as to start constructing a fledgling model of uses of the site, linking types of posts with personal levels of engagement and attributing

any disclosures of emotions posted to learners, principally. Finally, the profiles were useful to inform the semi-structured interviews in the second phase of data collection.

After counting instances of the types of posts (as codes), including the emotional codes and LTCA selective codes and attributing these to student profiles, the separate profiles were sorted to cluster Under-19 Students and Adult Students. The aim was to represent the different groups (Under-19s and Adults; high-engagement and low-engagement; Phase one and Phase two; Repeating first year and second year students), in order to make comparisons clearer between the activities of the varying sets to see what patterns might emerge in behaviour and activity. A visual data representation representing the highest frequency in types of posts was made on paper to keep check of the patterns drawn.

An example of this profile clustering is represented:

| Example of Adult HEU | Example of Under-19 HEU |
|---|--|
| <p>Name: <i>Lucy G</i></p> <p>Completed course (Grade: A)</p> <p>Types of posts: <i>constative action; delayed response/remote learning; strategic action; notification to teacher; self motivation remark; seeking feedback</i></p> | <p>Name: <i>Elliot</i></p> <p>Completed course (Grade: D)</p> <p>Types of posts: <i>Notifying teacher; checking understanding</i></p> |

Figure 10 Example of Student profiles posts and categorising of type

This activity segregates the types of use and thus user, representing how more use of the network is made by HEU, who on the majority were adults. Through this profiling activity a better picture of differentiated use was clearer.

Chapter 8 Empirical Analysis Findings

8.0 Organisation of the chapter

This section outlines the results of the stages of analysis, presented graphically and showing the comparisons between groups. Interpretative discussion is minimal in order that the results are shown as they were found, with the discussion of the data findings interpreted for meaning in the following section.

8.1 Results of codes attributed to the Content Analyses of each phase of Edmodo use

As explained, frequency counts of common codes were deployed to see common types of use by students.

It was explained in the earlier Open Coding section (7.2.2), that a lens was taken to the first analysis, allowing for the consideration of 'affordances' that emerged from the data. These were grouped as:

- Publication
- Inquiry
- Mobility
- Collaboration

It was understood from the literature review that these represented the key Web 2.0 attributes afforded students. In the open analysis, not all of these affordances were immediately apparent: while mobility (as remotely made posts) is clear (since nearly all posts were made outside of the classroom or college hours), it is challenging to ascertain much beyond that observation. It was not possible, for example, to record the time posts were made and relate them to classroom sessions due to the plethora of posts. What was apparent, as might be expected, was the increased activity when assessments approached. The relevance of mobility was reliant on a teacher being available to feedback, on resources and on a sudden, or just-in-time, need to know. This was more pronounced in adults than under-19s, as shown in the graph below.

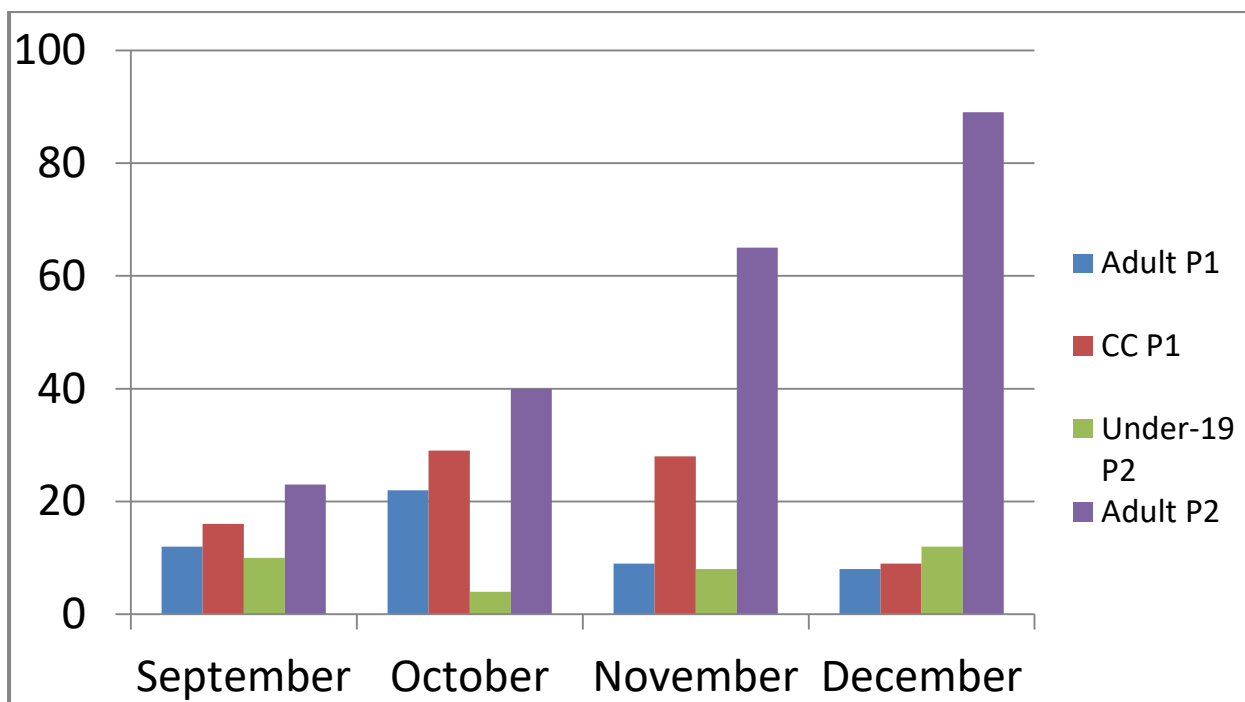


Figure 11 Bar chart of group activity

The chart above (Figure 11) shows (Y axis) number of student posts from each group (X axis) in first term, showing an increment in uses towards a November assessment date, except for the Under-19 group. High incidence of Phase 2 is due to blended use of the website (integrated within classrooms more often). The figure is discussed in further detail throughout various sections in Chapter 9 (Discussion of Findings) and is presented here as orientation for the reader to see the marked differences between members in terms of posts. The main reason for high Adult use in Phase 2 was probably that lessons were situated in a computer laboratory classroom, which enabled more blended learning approaches, and this improved familiarity appears, perhaps unsurprisingly, to increase mobile use.

Inquiry, as a selective code, is translated into a set of different properties because there are differing types of questions: a question raised about the location of a lesson could be regarded as less representative of high engagement than someone asking a question regarding the procedures of activities towards assessment. Therefore, inquiry became a category in itself, as discussed in 9.2, where Selective Codes are explained.

Publication can be seen as the open declaration of all views, opinions and answers, rather than publishing of work. There are, in that sentence, four criteria to publishing, which were all coded separately. Finally, collaboration was unexploited. It could be

seen in teaching activities, though these are discounted as they are bounded by the teacher’s instructional guidance of use.

8. 2 Data representations of analyses and comparisons

8.2.1 Frequency results of common posts made between adults and under-19 students

The table below shows the most common types of posts accumulated across both phases, combining the adults from both phases and the under-19 students from both phases (in periods between the periods of September to April). These age sets were then separated into high engagement and low engagement groups. The coded posts as communications made openly from each group were counted and are shown below. These are not plotted to individual members, but clustered as frequent responses to track engagement.

| Adults phase one | Adults phase two |
|--|--|
| Posts response to a discussion thread (7) Organising and Managing learning (6) Goal-orientated (4) | Lifeworld (25) Peer-support (41) Organising and Managing learning (31) |
| Under-19 phase one | Under-19 phase two |
| Notification to teacher (9) Organising and Managing learning (12) Seeks feedback (13) | Notification of absence (2) Organising and Managing learning (2) Posts work but doesn’t seek or request feedback (2) |

Table 10 Frequency count of most common number of posts by Adult/Under-19 students across both phases

The low figure counts reflect both the reticence of the students at this early stage of the course, (the first term when students were not familiar with one another) and – it appeared from interviews – the use of the network. A prominent feature across the Under-19 groups was using the site to contact (‘notify’) the teacher, which were always cases of absence or lateness, indicators (by their frequency) of disengagement. As

shown above, these stand out as a purposeful use coded to that group, in contrast to a wider range of purposes by Adults. It can also be seen that use is highly teacher-centred. LEUs posted work, but rarely asked for feedback. Communication between members is limited, though among HEUs information was shared. Managing and organising work is a common form of network use, represented by students checking with the teacher about deadlines, length of assignments, dates of assessments, etc. This reflects a level of self-regulation seen commonly among HEUs among all ages.

Engagement as mobile (remotely made posts), can be seen by 'posts responses'. These were discussion threads or questions posted by the teacher, with the aim of sustaining discourse on learning objectives, with instances recorded among HEUs.

There may be reasons for non-response that the table doesn't reveal (lack of access, lurking, low-confidence). What is clear, and significant, is the higher occurrences among adults than under-19 students. It can also be seen that a greater sense of (online) cohesion among the adult group occurred earlier, with high levels of community-focused work over more self or teacher-directed posts. For instance, sharing resources, socialisation and peer-support connote participation between members that are not teacher-centric, reflected in code labels shown in Table 10 such as 'Lifeworld', which were instances of off-topic discussion and revelations of self, commonly terms of socialisation. In comparison to the under-19 group, socialisation appears low (3) and peer support is non-existent, despite the assumption that could be drawn that the under-19 students, operating in cross-college courses, become more familiar with one another than adults who only meet once a week.

8.2.2 Instances of Affective disclosures within groups

The separate focus of analyses on Affective disclosures are presented in the tables below, firstly showing instances by adult students posting to Edmodo and comparing their statements between the two phases:

| Adult Phase One Sep – Dec | Adult Phase Two Sep – Dec |
|---|--|
| Growth in confidence = 1 Appreciation = 11 Disorientation = 6 | Apology = 5 Appreciation = 26 Enjoyment = 5 |
| Adult Phase One Jan – Apr | Adult Phase Two Jan – Apr |
| None | Apology = 5 Appreciation = 6 Self-depreciation = 1 |

Table 11 Frequency count of Adult affective disclosures across both phases

The most obvious difference shown above is in the significantly reduced statements of emotional disclosure in the second term in each phase. In some instances, these posts contain dual messages of disclosure, e.g. being unprepared and lacking confidence. It may appear unremarkable to include instances of self-disclosure, but the high number of this category code warranted analysis and is segmented for further discussion in 9.3.

The cross-college Under-19 students again reflect lower levels of use and instances of disclosure, represented in Table 12 (p.190). These instances are low numbers: one single student's repeated calls for help appear in column one, and only four students comprise the eight instances of emotive disclosure in column two. It is possible that cross-college students are generally accustomed to affective experiences and therefore have fewer proclivities to declare need for support. In the instance of the student in Phase One (Table 12 below), her disclosure can be calibrated against classroom experiences, where she was routinely disorganised and had a high degree of non-attendance due to illness, resulting in her falling behind despite a higher degree of use of Edmodo than other under-19 year old students in the group; unfortunately, her illness continued in the second year, and the behaviour patterns of not being able to work independently repeated in the second Phase, until she left the course and moved to a Level Two Functional English group.

The Phase Two adults table reflects higher confidence, greater range of use of the platform and community cohesion. This appears to result in more instances of affective-disclosure to the network, as community members seek help, direction and assurance from the teacher and the community itself. This was more forthcoming in that group with more instances of social support as peer encouragement and empathy and as the students progressed it can be seen that the affective disclosures subsided in number into the second term. This is clearly shown by a marked decrease in 'Appreciation', potentially reflective of more ability to work independently or less acknowledgement of teacher-presence and help. The Under-19 disclosures below were not recorded by term, so the small numbers represent the total across two terms.

| Under-19 Phase One | Under-19 Phase Two |
|--|--|
| Confusion (1) | Asks for support (2) |
| Disorientation (1) | Appreciation (3) |
| Stress (1) | Encouragement to peers (2) |
| Worrying (1) | Confidence improvement (1) |
| Struggling (1) | |
| *These disclosures are from a single student | Phase Two disclosures counted from a total of 4 students |

Table 12 Frequency count of Under-19 affective disclosures

Fewer instances of declaration are possibly due to increased confidence and knowledge of what to do ('orientation'). These instances are low in number, despite the Under-19 students in the first phase often being unsure and remaining largely peripheral in the mixed-age group. This was shown in interviews with a repeating student from that cluster who alluded to feelings of being submerged by the number of adults in the cross-college group.

The types of disclosures shows that the Under-19 students are reticent about publishing, or else do not experience them (which seems unlikely). Interviews

suggested shyness was common among Under-19 students, so it may follow that they are unlikely to post any emotional self-disclosures, due to ambivalence towards the community or teacher or not perceiving this as the purpose of a learning network. What is of particular interest is that HEU often post affective disclosure comments, which seems to contradict the affective filter hypothesis (Krashen, 1985) that suggests negative emotions are impediment to learning. An alternative rendering of this theory would be that affective disclosures become normalised, following ‘personalisation’ posts. The will to disclose openly points to ‘community’ facilitating such statements.

8.2.3 Repeat-repeat students

Among the cohort across both phases were a small number of students who repeated the course in the second phase from the first re-sit course in Phase One. The results of these students’ posts were extrapolated from the overall content analysis to focus on their increased - or otherwise - sense of engagement as it is represented by use in Edmodo.

| Phase One activity | Phase Two activity |
|--|---|
| (Adult) Jane= Phase One = 3 posts, including Photos and personalisation detail: uncertainty, anxiety (1); managing learning | 73 posts = sustains discussion (3); resource sharing (3); shares ideas/information (5); lifeworld (informal) (4); Peer support (7); |
| (Under 19) Tony = No Personalisation details Phase One = no posts | 21 posts including = shares information (1); peer support (2); sharing ideas (3); organising learning (4); posts work for feedback (2) |
| (Under 19) Amy = Avatar and some personalisation details; Phase One = no posts | 8 posts, including = DM posting work, but no feedback requested (2) + uncategorised (2) |
| (Under 19) Marie Posted avatar = 1 post: request to participate as instructed | 18 posts = seeking feedback (2); shares resources (2); DM: seeks feedback (1); notification of absence/asks to do work (1); other uncategorised + photo and personal detail |

* “request to participate” is asking a teacher to be allocated to a specific sub-group for a learning activity

Table 13 Activity of repeating students who undertook the course across both phases

The left column above show posts from Phase One compared to a greater range of uses of network made. These results indicate increased activity in each case, a range of types of posts and increased presence in the space. The increment in under-19 students is clear: moving from a low-engagement cluster to a high-engagement one, with only one of those students (making 8 posts) unsuccessful in securing the qualification in this Second Phase. However, the behavioural change in posts is not as dramatic as with adults. It can be seen, for instance, that while the volume of all under-19 students posts increases, two of the three retain a degree of activity reflecting privacy by direct messaging (DM). There is a slight increase in community-type posts - sharing ideas and work openly – yet their focus appears to be self-determined, reflected by the posts made. Tony and Marie show engagement via disclosures for self-improvement and improved confidence, while Amy - the unsuccessful student - posts work but did not do so explicitly declaring a request for feedback, which necessitates reflection. Amy's work would have received feedback from the teacher, but it was either not acknowledged or not focused upon. The reasons for this apparent lack of social cohesion between younger group members can be seen again and was drawn out in interview with Tony. The results of interviews are discussed in the next section.

8.3 Interview codes

Given both the structured and semi-structured approaches taken, open codes were prolific here. The semi-structure pre-ordained questions aimed to create a synthesis of categories to draw comparisons from, which are reflected in tables presented throughout the section. The first figure shows a common assortment of inter-subjective codes across all interviewees. These have been categorised broadly in this instance. More specific selective codes were attributed where the focus was made on the specific interviewees, shown in the later tables.

| | |
|---|--|
| <p><u>Positives</u></p> <ul style="list-style-type: none"> • Visibility /openness • Ability to compare work or where students is to others • Orientation and focus on course • Ability to organise and plan • Joining up lessons/ structuring • Connected teacher on hand to help • Resources and content rich • Less formal • Ease of use • Point of reference • Use of others material <p><u>Negatives</u></p> <ul style="list-style-type: none"> • Limitation in others use • Limitations in what can be done | <p><u>Perception of student community on Edmodo</u></p> <ul style="list-style-type: none"> • Cautiousness of others to be open and share on social media • Emotional – fear of embarrassment (in front of other students); fear of being wrong (in front of teacher) • Disappointment in lack of participation; ‘unreadiness’ of others for learning; • Fear (in others) of constructive criticism [<i>antisocial</i>] • Peripheral participation (of others) [<i>antisocial</i>] • Misuse of site by others [<i>antisocial</i>] • Inappropriate language [<i>antisocial</i>] • Peers: shyness of use [<i>antisocial</i>] • Learning support as not forthcoming • Limitations of interaction • Desire for privacy [<i>antisocial</i>] <p><u>Perception/utility of general technology</u></p> <ul style="list-style-type: none"> • ‘Intrinsic navigation’ – intuitive knowing how to learn using Web 2.0 • Attention – educators vying for it with other social media • Contact with others in the wider world community supporting learning and lifeworld objectives • Personal utilitarian purpose for using social media • External agencies of learning through social web • Equates status of contact on social web as expert with knowledge • Sense of dissonance with others use of social media |
|---|--|

Figure 12 Common codes across all interviewees responses from both phases

8.3.1 Interview codes from adults with comparisons

Due to availability of participants it wasn't possible to make a semi-structured interview with a low-engaged adult, but responses have been drawn in from adult questionnaires at the end of phase one. These are shown in the groupings below and are drawn from all adult interviews (9 questionnaires in phase one and 2 structured in phase two; n = 11).

Use

- By app – mobile access, anytime/anywhere (usually at work) enables greater independence
- Easy access; constant connection; safety net
- Regular access
- Checking for updates (akin to social media)
- As first point of orientation
- Initial attitudinal resistance

- Joining up to prevent disengagement
- Limitations of functions and format
- Developmental of self as student and person
- Promotes responsibility and participation

Teacher

- Easy to contact teacher
- Gets direct, personalised feedback
- Over use by teacher
- Connection to teacher

Community

- Misuse by others
- Background noise of irrelevant posts as annoyance (community expectations and normative actions, brought about by a sense of leadership)
- Disapproves of social element (creates dissonance/exclusion)
- Cliques in class reflect cliques on site (creates dissonance/exclusion)
- Shyness within community
- Social and affective peer support is collaborative
- Not wishing to share ideas
- Checking in aligned to staying on track with the others – comparison to others
- Teacher as other / one who gives constructive feedback
- Distinction between domains of Facebook (or other social networks) / Edmodo
- Inconsistent involvement of others
- Support from others removes feeling of isolation/disorientation
- Site helped facilitate social aspect and friendships

Open Publishing

- Growth in confidence from one year to the next
- Peer-supported value

8.3.2 Interview codes from Under-19s with comparisons between high-engagement and low-engagement students

The next figures represent a comparison of common codes across the interviewees, divided between the Low-Engagement Under-19 interviewees and the more High-Engagement Under-19 repeating student, Tony, whose assorted codes are shown below. The codes have been grouped into separate categories and comments in parentheses are interpretative memos.

| |
|---|
| <p><u>Perception of Edmodo:</u></p> <ul style="list-style-type: none">• as a form of ‘fun’ social media (engagement association aspect)• as being continually connected/speeding up – instant feedback (continual remote embodiment)• as increasing or improving focus on the course (remote situating)• remote support provided and communication of what to do likened to a lesson (blending perception)• Ease of navigation (Appeal to use, interdependence)• supportive reassurance (affective response = remote support)• communication style of teacher is different to classroom – more friendly/less formal (interpersonal enhances communication)• similarity to Facebook (as negative) makes it suspicious (Attitudinal: dissonance between academic/social domains) <p><u>Use of Edmodo:</u></p> <ul style="list-style-type: none">• sporadic access/once or twice a week (just-in-time approach; uses when need arises)• ability to personalise through learning activity (a reflection of a particular activity, not exclusive to Edmodo, but perceived as helpful as it is archived)• ability to revisit things (static archive helps student work at own pace; improves reflection; self-directed)• Number of posts can be overwhelming (dissonance with rich activity; selective approach) <p><u>Perception of social media:</u></p> <ul style="list-style-type: none">• as supportive of end-result in future (inherent awareness of own learning)• Has different personal ways of use to others recreational use (‘otherness’)• lack of focus when used recreationally to discuss college (dissonance between domains) <p><u>Perception of community:</u></p> <ul style="list-style-type: none">• as supportive and helpful (cohesive awareness)• can compare where he is to others/surveillance (modelling/self-measure as motivating)• ‘in-class’ age group of learners motivates use of Edmodo (community cohesion through similar others)• identification of self as leader in group (attitudinal: responsibility declaration)• posting work openly helps build confidence and cohesion of group (affective affordance of identity improvement) |
|---|

Figure 13 Interview response codes from an Under-19 High Engagement repeat learner (n = 1)

General statements:

- Edmodo is supportive of knowing what to do (orientation and direction)
- Supportive for content / access to resources (a consumption perception)
- Works as a reminder of where they were (orientating/reminding)

Views on Community:

- Student-based support (Others provide help by posting – but interviewees don't upload themselves)
- Opportunity to share work to support others (Publication as sharing, but personal increment rather than community)
- Seeing others work is beneficial (Latent visibility and publication)
- Lack of peer-interaction as limitation (LE participants await others direction)

Way of using Edmodo:

- Print online resources out in order to physically interact with content (by colouring, underlining) (*Physical artefact preference*)
- Await direction from teacher (*Less self-directed view of site; lack of ownership*)
- Log in twice a week to remind/join-up (intrinsic awareness of how to learn)
- Watch what others do (latent surveillance)
- Multimodality appeal (Supportive where text-based directives are problematic)

Perception of Edmodo:

- Similarity to social media (Familiarity appeal)
- Use it to share work (Regarded as positive, but don't do so themselves)
- Await next post to lead through syllabus (Supportive as followers, but don't lead themselves)
- Low expectations of value: didn't originally perceive it as useful (Attitudinal value, which changed through use – the case for this claim is argued in detail below the figure)
- Suspicious – viewed as extra work to do (Attitudinal value, which changed as they regarded it as supportive – the case for this claim is argued in more detail below the figure)

Figure 14 Low-engaged Under-19 student (n =3 participants) interview codes bundled from interviews, with interpretative memos

The above table represents 3 LEUs responses to interview questions, and memos from content analyses profiles and observations included in parentheses; exploration of individual answers is drawn out further in the following discussion sections using names of LEU participants to identify specific answers.

8.4 Attitudinal change in LEU

Changed attitudes show potential impact on engagement by the network and were detected in interviews, classroom behaviours and actions in use of the network. A change is apparent in the two bullet points 'Perception of Edmodo'; the LEU students reported advantages of use that were not necessarily supported by individual agency in using the site (i.e. '*opportunity to share work to support others*' in HEU), and viewed this advantage as (code) '*surveillance of others work*'. Most advantages of the site reported were less-community focused or self-active, and more passive, reliant on a teacher or taking guidance from others activity ('*visibility*'). However, among the group interviewed, they reported a change from low expectations and suspicion of the site to one more positive – as useful or supportive. Increments of activity by LEU Janet appear to support these claims, as the more motivated of the three interviewed and the interviewee who made the claim of the change in attitude:

Janet (Uses profile picture, but no other personalisation details) 5 posts = 4 made as Direct Message only: submits work as instructed (4); plus, 1 post made to the wall, as a group activity: posts group work as instructed (openly) (1)

Janet's activity increased as she came to use the site differently. She stated that she logged in twice a week to situate herself to English and this is reflected by her declaration that she can see what others have done and remind herself what she needs to do – a 'joining-up' and 'thinking ahead'. This is a positive change in perception from a previous 'suspicious' view of the network, and which was further emboldened by Blended Learning, as, when working in a group with the other LEUs, Janet took the self-directed decision to post the group's work through her own account, something which she did openly where before she had never posted to the community wall - reflective of a threshold. Following this, further increments between January and June in use were made, but all as (invisible) Direct Message to the teacher – requesting resources (exam papers), sending work for assessment and sending work for feedback. It's notable that Janet did this through Edmodo, rather than via a VLE or by e-mail. She recognizes it as a base for communication and work, a point of orientation, and is simultaneously able to 'check-in.' Coming as this does from an extremely shy class member with dyslexia and low-confidence, the change in self-

motivation and application to the course was subtly, but tangibly, detectable through increased activity in Edmodo. The social network here assists inclusion, providing an opportunity for performance of this confidence growth. There is resonance between the convergence of learning identity and attitudinal shifts situated around social networks, shown by Janet's progressive inclination to learning standards, with those Repeating students who moved from LEUs in Phase One to HEUs in Phase Two (see 8.2.3), as negotiation to objects becomes more purposeful and redolent of activity, as in the cases of Repeat-repeat students Jane and Tony. This is manifest as the organising code 'Readiness for Learning', (9.2.5). In their cases, the students took more self-direction in use and supported their progression and the communities with less instruction. There were also cases of attitudinal change towards the network reported by the HEU Joe, who stated:

Joe: I'm a bit of a technophobe. So when I first seen it, I made my account thing, used it, didn't remember my password or nothing. And then every week we were talking about it in class and we're putting all different links up, what we thought would be handy, so I thought I'd better start using this.

This is reflective of the initial resistance or ambivalence to the network by a student who became prolific in use and types of posts more rapidly, from LEU to HEU. The argument being presented in this section is of cases where students illuminated how their personal negotiation with the network and, subsequently with the course, changed as represented by changes in attitude towards the network itself. As a breakdown of engagement taken from LEU, HEU and repeating students, '*momentum*' that impels this attitude to occur was interpreted through varying triggers: blended intervention (Janet), awareness of sustained and proximal connectivity (Joe) and a re-evaluated focus on the network as enabling success (repeating students). Further exploration of attitude change is made in 8.4 and theorised in Chapter 11 Thresholds of Engagement in Situated Mobility.

There are clear differences between the responses given, with an understanding of self-directed activity revealed by the Repeating HEU, who attributes the importance of social cohesion, the ability to lead and overall less reference paid to the teacher in responses. Reference to the teacher is in relation to the teacher being on hand

(‘connected’) when needed, a reference that doesn’t stop him being active on the site – as reflected in his student profile, shown below:

Tony 21 total posts in Phase 2 (compared to none in Phase 1). No photograph or personalisation details added to profile.

Posts include = contributes opinion to thread/link to *lifeworld* (1); shares information (1); appreciation (1); posts work as instructed (4); peer support encouragement (2); sharing ideas (3); organising learning (4); posts work for feedback (2); intent for self-improvement (1); Direct Messages to teacher (2)

Figure 15 Combined posts of High-Engagement Under-19 repeat student

This profile cluster of the High-Engaged student Tony can be compared to the three interviewees of the Low-Engagement students, shown below:

Dave F 4 posts = posts work as instructed (but no attachment) (1); posts work as instructed (3) – in neither case were comments added or feedback explicitly requested, though this was the intent of the post)

Janet (Uses profile picture, but no other personalisation details) 5 posts = 4 made as Direct Message only: submits work as instructed (4);

1 made to the wall, which was a group activity: posts group work as instructed (openly) (1)

Rhianna (Uses profile picture, but no other personalisation details) 8 posts =all Direct Message posts work for feedback (8)

Figure 16 Combined posts of Low-Engagement Interviewee respondents

Comparing these results reveals a degree of self-direction (being proactive) enabled through the site by HEUs exploiting it for a greater range of self-directive uses, including:

- *taking initiative*
- *aiming to involve peers*
- *evaluating own needs*
- *creating disclosure actions leading to goals*
- *sharing own found supportive resources*

The above may be compared to a Knowles (1970) definition of self-directed learning:

“...a process by which individuals take the initiative, with or without the assistance of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes.” (Blaschke, 2012: 58)

Aspects of Knowles identification overlap with what is shown in use by the HEU Tony, for instance in perceiving goals and means to meet them. Clear differences in student types are seen in individuals approaching their learning as self-responsibility that suggest capability and motivation are crucial to self-direction. From Knowles view, *self-direction* implies an acute personal self-awareness of how to learn more characteristic of the Higher Education student, suggestive of maturity to identify structural goals and create personal strategies for those goals, which include resources shared to a networked community and access to a teacher to guide these actions. This is reflected here by the higher instances of self-organisation and management, self-awareness of language use, goal-orientated actions and a situated independence through the context of the network, found mainly among adults or in cases of repeating Under-19 students.

8.5 Interview findings summarised

The comparisons based on students will lead to a theorisation of engagement.

Overall, the interviews reveal many common identifications of the site as supportive to student objectives. Findings are extracted below:

- Repeat use (in second phase by first phase students) improved participation
- Adults display more socialised support behaviours
- Students use the site to orientate themselves to the course and objectives

Some ‘anti-social’ use in the respective communities was reported, aligned to classroom behaviour – misuse, inappropriate language, cliques, disruption and background noise. Under -19 students identified a lack of participation, but their own input to activity is sparse, unlike adults. Therefore, cohesion is lacking and peer-support – identified as a main positive of the site for adult confidence and engagement

– goes unexploited as Under-19 students remain reticent and ambivalent to affordances of community. The sense of ‘sharing’ as an affordance is guarded in Under-19s, who view ideas and resources as their own and that sharing unfairly supports less motivated students.

All interviewed students were aware of teacher presence, but under-19s cite it as a main function of the site, awaiting direction from the teacher as ‘other’ and an immediacy of connection being focal. A significant difference is among adults who, on the other hand, recognised that if the teacher is unavailable they may engage with peers with work, resources or questions.

HEUs perceive the space as supportive in a remote, situated sense, that is - as a first point of reference (‘orientation’), akin to a textbook. This is more teacher-dependent and directed with Under-19s, particularly low-engaged ones who await instruction rather than assume ownership. A strong pattern between all interviewees is the regard of a social space as source of content associated with learning, yet adults made the space informal with *socialised input* (characterised by posts using humour, names of others in communications, off-topic phatic (‘small-talk’) expression, and ‘Lifeworld’ comments) and community as affective-responsive (characterised by encouragement or empathy posts).

Chapter 9 Discussion of Findings

9.0 Organisation of the chapter

This chapter discusses the implications of the findings in light of theory, the research questions and with attention paid to the implications of analysis to the student body and policy. The chapter explains the ordering of codes into categories to start a conceptualisation that links to the later theoretical sampling. References are made throughout to interview quotes and posts from the content analysis.

9.1 Andragogy links discussion

A combination of findings from interviews and content analysis draw resonance and dispute with Knowles (1970) characterisation of Andragogy. Firstly, the links to *self-concept* (whereby, adults become more self-directed) can be perceived, not only in adults but in all HEUs. Reasons for this may be the willingness to use and divulge informal life experience (resident in social utterance posts described above), which corresponds to Knowles statement that *Experience* is drawn upon to enhance community integration. *Self-concept* came prior to community interaction, as individuals sought their way in the network through assurance from the teacher first, before interacting with others in the community.

However, contrary to the notion of '*Orientation*' as indicative of Andragogy in adults were the '*just-in-time*' approaches to learning as the interviewed HEU adults were more mobile. 'Joining-up' as frequent, mobile access facilitates a connected residence. Indeed, it is the cross-college, Under-19 students who use the site for '*just-in-time*' approaches, reflecting an 'as and when' need arises, rather than having a sustained discourse, via situated mobility.

Arguably a more significant notion in Knowles framework, when considered in light of online learning, is the characterisation of *Motivation to learn*, which claims adults develop such a quality. In this study, adults were more proactive, given their voluntary status as studying at night on the standalone course. The presence of the network and triggers such as mobile push notifications may act on self-responsibility as a conduit of agency (i.e., it enables actions), shaping pre-existing inherent motivation. A student

wishing to succeed or improve is afforded opportunities by its presence to continually channel their learning experience (as agency actions, whether through disclosure of difficulties, sharing, etc.) sustaining engagement.

Actions include affective elements – particularly inhibitors such as shyness or low confidence or a lack of awareness of how the network can function or support outcomes remotely: a ‘technological disembodiment’. Lack of action is contradictory to ‘self-determined’ learners who, in the continuum from andragogy to heutagogy, know better *how* to learn. Resistance to act must be attributed to the nature of the course as compulsory; for this research problem, motivation to succeed is already personally compromised among many students. The learning network had positive values as realised affordances with HEUs, ostensibly adult students with access to computers during lessons improved blended access to the network. This, and associated blending activities during lessons, produced more activity (as shown in the marked differences in posts by Adults in Phase Two in Table 10 (p.187), but also gave students an orientation point to return to the network independently where needed outside of the lesson (as reflected in interview responses with those members). As such, it encourages independence (‘joining up’) that improved goal-orientated actions and further actions, but among HEUs.

There is little to suggest that Situated Learning through online social networks can inculcate mobility or the main proponents of heutagogy - autonomy, capability, self-efficacy – and FELTAG (2014). As exception, an enhanced cohesion of a community made through offline events (face-to-face lessons) helped groups orientate online. There may be a risk of students becoming less motivated online, where community fragments. Further to this point, collaboration as an affordance is experienced in this study by students co-operating through the network more with the teacher than the community. However, as cohesion was gradually fostered offline (across time), the adult group, more remotely distributed (meeting once a week, rather than multiple times) situated residence through the network between lessons.

A central question is whether the management and negotiation of activity is worth using by teachers already operating under time-intense restraints and where uptake is not adopted wholesale by an entire group. A concluding response to this is that input

by this researcher (as teacher) to the network was felt to be worthwhile in generating activity supportive to objectives, however minimal interaction appears to be.

9.2 Selective codes discussion

According to Newby (2010), the next stage in a Grounded Theory approach is Selective Coding where codes are grouped by an overarching idea: “The process seeks to find a link between codes that will bind them to a core idea” – in this case the core idea that started to appear from the analysis was ‘levels of engagement illustrated by types of posts made’.

Selective coding is a more ‘focused’ examination of the raw data (Charmaz, 2006) which seeks *possible* links between codes and combinations, before leading to theoretical coding. This stage was complemented with a process of constant comparison by designating the separate codes to all students’ profiles. Profile-building was an important stage of clustering where codes by each individual student were counted and made against their name and their population in the research (e.g. adult group, phase one). These profiles were sorted as ‘LEUs and ‘HEUs; patterns were sought between what posts were made by comparisons between those profile types (high-engagement/low-engagement) and population (adult/cross-college ‘younger’ students).

An explanation is now provided of how the overarching ‘Selective theme’ was applied to groups respective sub-codes. Charmaz (2006) discusses how Selective coding is used to create order from the raw data, so a scale of the posts was arranged from the overarching subordinate selective codes to show how activity (posts) corresponded to characteristic behaviours (types of student).

9.2.1 Personalisation

The first category shown below is collectively exhaustive as a grouping of posts made by *all* students across the 4 samples. All students personalised their account at some level: an imprint (at quite a minimal level) of their identity onto the space. The ways this could be done are limited by the functions of the website, but students may (or may not) use a picture of some sort. Students were only instructed by the teacher to open an account, which would necessarily include their name – anything beyond that was their choice, hence: ‘personalised’ accounts.

At the lowest end of activity, all students used their name, sometimes abbreviated, to create an account. Some stopped there, while others spent more time choosing the picture and then discovering they could personalise their account through use of quotes, preferred learner 'style' and career ambition. Activity becomes more individualised as detail is added, which is then mutually exclusive in terms of engagement, e.g. higher-engaged students added more detail to their profiles. In these terms, 'personalisation' is positioned at a low end as a basic level of interaction or engagement within the space.

| Substantive code | Examples of open codes | <i>Example post</i> |
|-----------------------------|--|---------------------|
| Personalised account | Uses own name Adds details to personal page Posts profile picture Makes lifeworld declaration | |

Between adults and younger (under 19 years) students, there is little distinction in using profile pictures: i.e. some do and some don't. However, adult students who didn't continue the course reflected ambivalence with this type of profile-building as juvenile (and thus anti-social to community). In the entirety of the cluster of adults discontinuing the course in the first term, none posted avatars or provided further detail beyond their name. Personalisation becomes a norm of use helping groups and teachers with familiarisation and ownership and leaving a representing presence in the shape of avatars.

9.2.2 Notification to teacher

The next stage is also a characteristic code of what students do and was, in the same way as above, used to group defined codes, then compared to the counted codes made on student profiles and to the respective age groups.

Notifications to teacher are not exclusive to profile type (i.e. both HEU/LEUs, adults and younger students posted them), but when comparisons were made to the profiles,

they were often the only codes that had been applied to the LEU profiles, while HEUs made those posts, and other types of posts.

| Substantive code | Examples of open codes | Example post |
|--------------------------------|---|--|
| Notification to teacher | Will be absent Has been absent Will be late | <i>“Hi Howard, i wont be in today as i have been up all night with headache and being sick, I'm going to the doctors this morning”</i> |

A notification is classified as a message to the teacher, but not related to learning or instructed tasks. They are indicative of low-level engagement due to their lack of focus on objects (i.e. completing an assessment, success on the course), reflective of low levels of use and cultivated participation in the online space. The selective code ‘notification to teacher’ is general, but is used to group these codes since there is a sense that a student sees this as a type of affordance of the technology, so it is a ‘superordinate’ Selective code that emerged as a common trend unifying the respective subordinate open codes. Perhaps unsurprisingly, students routinely making only these types of posts, and few or no other types, were often unsuccessful on the course. The continued notification of absence or lateness is notification of difficulty by a student in managing learning and such data may be a signal of potential disengagement. There were cases of these notifications gradually followed by inquiries for help, clarification, support and resources. Notifications may be acted upon by directions from instructors to enhance communication of how the network may be used remotely to support objectives, but those students only sending continued notifications tended to have continued difficulties. In those cases, mobile access to resources was not perceived as advantageous and face-to-face interaction better supported a student.

9.2.3 Disorientation

| Substantive code | Examples of open codes | Example post |
|-----------------------|---|--|
| Disorientation | <p>Confused about what to do (learning tasks or understanding)</p> <p>Understanding the technical functions of site (handing in work, attaching files, etc)</p> <p>Seeks support or clarification</p> | <i>“Is this like a story we have to write”</i> |

Disorientation follows personalisation as a threshold action, due to personalisation being the initial action made in the space (by using name and password to set up an account as basic first action, followed by avatar, etc). Notification, as explained, may tend to be briefly stated dramaturgical actions, such as “I can’t attend on Thursday” and appears more symbolic of disengagement. Disorientation on the other hand was perceived as closer to a need expressed by a student. It may be characterised by student acquiescence to goals and objectives and the community of practice as enabling those, or more motivationally driven – to find something out from others.

Disorientation is reflective of the contexts of the environment and the course syllabus. This is a highly important state of being to recognise in students and may consist of confusion or, worse, despondency. The issue was raised in interviews with questions surrounding the potential for logging into the website and being confronted by active content to cause worry in students who had fallen behind. HEUs reported an alternative: that the social network served more as a supportive “base” where students could find out what they needed to do, as orientation made visible and inverse to disorientation. The label ‘disorientation’ was made, over terms with more loaded emotional connotations such as ‘confusion’, due to its relation to the inverse, as well as its metaphorical significance. Disorientation may be temporal, though with frequent absences, learning difficulties and some students starting the course late, disorientation is a primary ontological experience and can lead to disengagement as

self-exclusion. Orientation through a base disrupts disengagement, reflected by affective disclosure posts which seek direction:

Stacy: *“Im not sure what to do tomorrow, I've been very stressed lately with everything thats going on. (Personal) so I need some help. Thanks!”*

Such a post is proactive and illuminates the student’s awareness of the network as supporting orientation. Timely intervention of support is obviously necessary in such cases, since students view the social network as affording them ‘immediate connectivity’ from an on-hand teacher.

While the network is textually rich for students with potential literacy problems and may (initially) be a disorientating environment to navigate, resources are available, alongside instructions, prompts and reminders frequently given. Moreover, despite a peer community on hand to support disorientated members, inquiries for understanding what to do were always made to the teacher, enculturing teacher-dependence as norm. This is reflected in interviews, where LEUs expressed a type of affordance as being able to “await” directions made by the teacher, rather than being proactive. The above quote, for example, is contrasted to an HEU, who perceives orientation as beginning with action (navigation) and expression (disclosure of help needed).

Tony: *“So, basically, Edmodo, everything that you need and everything that you’re going to have to talk about or find is right there in front of you. You know where to go, you know where it is. All the links are visible, you can understand what they are and what they mean.*

I feel like with having Edmodo we’re not really just meeting once a week, but we’re always in contact if need be and you can always say what you’re confused about, what you need to do.”

It is often difficult to know the students *lifeworld*, reticent as they are to communicate problems, so disorientation statements are welcome posts, since they are a beginning of situating the self to discovery and objects and intent to overcome a threshold of silent struggle.

9.2.4 Self-regulating and Inquiry

| | | |
|------------------------|---|---|
| Self-regulating | Checking Organising Managing tasks | <i>“are we allowed to underline useful bit in our our copy of the book or not?”</i> |
| Inquiry | Questions Checking understanding Guidance | <i>“How many pages is your draft?”</i> |

As explained, the process of choosing selective codes was one of bundling substantive codes together and application to student profiles to see what types of posts students made and drawing on classroom observations (where relevant) in a constant comparison of those characterisations to reflect levels of engagement. Many instances of reorganising the various Selective codes were made. Originally, for example, self-regulating came after the subsequent code in the continuum (inquiry); yet in reframing the observations and student profiles with interview respondents, it was seen that if an order is apparent, then these stages can be interchangeable. Indeed, self-regulating and organising is evident in communications posted throughout the curriculum as a recurrent feature of use, as response to teacher reminder posts. These tended to indicate the student’s presence and intent to do something that reflect the perpetuity of the learning process, not as one-off events but as a prolonged experience that organisation and sustained dialogue support.

Self-regulating is an intrapersonal state of being organised with workload, managing network tasks (i.e. *‘post work here by Friday’*), and checking in to reflect or plan ahead. Online networks help communicate the intrapersonal to objects. Self-regulating builds from Inquiry as a separate phase on the continuum, because organisation would follow disorientation, reflected by students ‘checking’ they understood. These stages resemble a work-orientated focus of how the site is used, resembling classroom dialogue focused on syllabus process, i.e. rather than *‘what to do’* (more akin with disorientation), posts reflect *‘how to do it.’*

The codes as bundled into stages that emerged further informed the notion of 'thresholds' of incidence - largely defined by LEUs. HEUs generally performed a wider range of uses openly and explicitly, while LEUs maintained a discrete presence, with only occasional posts as directed or when necessary (such as notifying intent, i.e. that they will do something). This is shown below where *Jess* (HEU) is organised and openly demonstrates her aptitude while seeking support, but *Cerys* (LEU) *notifies* quite late into the course that she *will* participate in future. For *Cerys*, this is an ontological declaration of intent situated openly – seeking validation from the teacher – and if followed up with further action is demonstrable of a threshold overcome. In the case cited, *Cerys* did not follow up and became disengaged and left the course due to difficult life circumstances. Other incidents of this type were made where students declared an intention to complete work on a just-in-time basis, which were later fulfilled.

As such, at the thicker end of participation and use, HEUs have visibly more presence accentuated by communications signifying increased affordances in their use of the site in staking new ground of what the network can be used for, while LEU make statements of 'just-in-time' intent, shown in the differences below:

Jess: *I have emailed you the first draft of my CA, not sure if I have the correct email though ☐ can you let me know if you receive it please? Cheers Jess*

Cerys: *Hi I have just bought the book this afternoon. I will contribute as soon as I can.*

Increased participation was commonly shown in adults, as opposed to younger cross-college students. In fact, it was quite rare to see younger students be forthcoming or proactive in the ways adults were, especially early on in the course. This changed somewhat as assessments approached, with more prolific use across both populations (shown in Figure 11, p.186) reflective of self-organisation, but less in younger students' actions than adults. In these stages of analysis, looking at the codes shows that a high incidence of use looks like a diary – showing organisation provided by the site as highly supportive of student experiences.

The label 'self-regulating' was applied as descriptive of those codes reflecting actions that, while communicated sometimes to the community for support, were self-stimulated by the student, so are a manoeuvre towards independence at a higher

stage. Where expressed openly (as opposed to framed to the teacher), they are reflective of both self-direction (such as reminding themselves what they should do in a public statement) and of a gradual direction towards community cohesion, less determined by the teacher. The selective label ‘Inquiry’ was applied to interrogative statements regarding work. Inquiry was considered less as ‘organisational’ (i.e. ‘what room are we in tomorrow?’) and much more work-focused, as in the example:

Patrick [posted to whole group via wall]:

Going to try another mock exam tomorrow .

What's our exam board OCR

9.2.5 Readiness for learning

| | | |
|-------------------------------|--|--|
| Readiness for learning | Joining up sessions Reflecting on lessons Planning ahead | <i>“Have had a look through. will be a great help as I missed the lesson. Thank you”</i> |
|-------------------------------|--|--|

This next category reflects a further threshold of student experience as linear, reflected by incidence of the codes clustered above as segmented to the student profiles. A recurrent theme identified in interviews and accordant to codes applied in the analysis was the support the site provides in students ‘joining up’, going between lessons at a mobile, remote level to revisit what happened in the last session. There are different interpretations of ‘joining-up’, but all reflect a greater sense of engagement and studentship labelled as ‘readiness’ – a sense of identity weighted by use of the site. At one level, joining up is catching up (possibly following absence), denoted in interviews with Joe (adult; high-engagement user) and David (younger student; low-engagement user)

Joe: *I caught up faster than I would have just coming in blind.*

David: *It gave you a list of the lessons, the lessons you posted on there, so you could, like, just recap on what you’d missed.*

Joining-up is cognitive orientation, a reflection of the previous week's syllabus content, as shown by Jane in interviews (high-engagement adult student), for whom Edmodo works like a course textbook:

Jane: *I still use textbooks and... I think I used textbooks while I use Edmodo as well, because I think you can't just use Edmodo alone; you've got to look on different websites. But I think using Edmodo is like a base – I think we've discussed about it already.*

I: *What do you mean by a "base"? Tell me a little more about that.*

Jane: *So, you go onto Edmodo to see where we last were in our lesson. And it's not... it's not telling you how to... how to complete your coursework. You've got to put... you've got to make involvement with... The teacher does post a lot of things to help with your course, but you've still got to look at books and other websites.*

There is recognition in her uncertain answer of the level of self-motivation she committed to in her approaches to studying. Jane repeated the course in Phase Two after Phase One and was subsequently highly responsible, diligent and involved in Edmodo, supporting others with resources and encouragement. Her developed confidence between the two phases was impressive and ostensible through increased Edmodo use in providing an opportunity to perform language ability as well as studentship. In Phase One, Jane was shy, apparently uninvolved in lessons and especially within the network; she listened carefully but worked slowly and got frustrated easily. In Phase Two, a renewed subject emerged: committed, determined, pro-active in leading by example and – crucially – highly supportive to others, enmeshing a sense of community through her frequent posts to others, which were gradually reciprocated and modelled behaviours. It would be disingenuous to isolate Edmodo as a cause in this behavioural change, but it gave Jane an outlet for opportunity to represent her renewed confidence beyond the sporadic classroom sessions. It's plausible to suggest that a stronger motivation to succeed was given an opportunity to anchor and demonstrate this conviction via the communication presented by the public network, moving from a peripheral community participant to a leading one. This is illustrated by the gradual negotiation through varying posts as

thresholds of participation, leading to a conscious self-presence in the open network as a form of ontological self-actuality and 'Readiness for Learning'.

For the interviewee Tony, (under-19 repeating student), the sense of joining-up was described in interviews in terms of feedback and also in preparedness:

Tony: *I think it's been really useful because rather than doing some work during the lesson, going home, possibly doing work and then bringing it back the next week... well, then you'd have to wait, like, an extra week before you actually knew whether you did the right thing or the wrong thing in your work. And it just really elongates it and slows the entire work process down. Whereas, for example, if you've done some work in the lesson, you go home and you do work on that, and then if you post that onto Edmodo, you've got a chance to know what's good about it and what needs improving so that you're ready for the next lesson. So you're basically saving an extra week, really.*

A sense of the space as fostering a more supported dynamic, much more focused on self-determined approaches to learning and studentship, is made in these stages.

The different attitudes are interesting here: Jane defines Edmodo as "a base", quite similar to Tony, as a point of reference or orientation, but she understands that in itself it is not enough; indeed, she uses Edmodo as a springboard from it to navigate other resources which she pays back into the site by sharing. Tony, on the other hand, although a far more open and confident user in the younger group (reflective that he himself, like Jane, was repeating the course and accustomed to the use of the platform) rarely shared resources he had sought out and, as the younger students seemed to demonstrate, depended on the teacher to post resources for the students. This may be contrasted with the state of 'disorientation' discussed earlier, where LEUs relied on the teacher to repeat instructions rather than look themselves. In repeating the course and use of the network, Tony has developed a better sense of navigational use that translates as 'Readiness for Learning'. The outcome to this is simply to induct students into use with clear direction of how to find, archive and access content that will be helpful for assessment, though there is no assurance that leading a student to content enables Readiness; the unifying aspect that separates the HEUs Tony and Jane is their repeating a second time. This is characterised by developed familiarity, a

knowing advantage they perceive they hold on the course that strengthens the case for a pre-curriculum need to induct students to the nuances of navigating a network.

Readiness for learning, as a selective code, is applicable to the different aged populations in different ways: more proactive and andragogical for adults; more discrete with younger students who still face a threshold of community dissonance (afraid of either appearing to be wrong or keen to be involved in academic pursuits).

9.2.6 Socialisation

| | | |
|----------------------|---|--|
| Socialisation | Peer-support Non academic Advice / strategic tips | <i>“pen drives are a student's best friend.”</i> |
|----------------------|---|--|

‘Social’ presence identified by Rourke *et al* (2007) is categorised as affective, interactive and cohesive elements, but while some codes of socialisation arrived at in this study parallel Rourke *et al*'s (use of humour, emoticons, etc), others were segmented into the categories already shown so far. The reason for this was to make more fine-grained, original analysis of this particular (FE) context given: 1. the importance with which ‘socialisation’ was attributed to it in interviews and 2. as empirically observed as a reflection of whole group cohesion.

The reason socialisation appears at this later stage in the linear continuum order is in terms of what it constitutes. Socialisation was perceived from analysis of all phases as a gradually and latterly emergent factor that had increment towards interaction and developing communication between students (as opposed to ‘mediated by the teacher’). Primarily, in the earliest stages across the content analyses of all the separate groups, communication was always directed towards the teacher. In terms of evolution in ways the network was used, socialisation is gradual, but with adults – exclusively, since Under-19s had minimal trace of socialisation – becomes more integrative. Interaction between students rarely constituted what may be deemed cognitive or metacognitive, i.e. students nearly never challenged or critiqued others views and rapport between them was nearly always positive, with expressions of

gratitude, supportive comments to peers about their work, encouragement and some tips made on studentship, as opposed to improving work. An example of the community cohesion is shown below.

Fiona r.

Just to let you all know im leaving the course and returning next year i hope you all do fab gud luck ? X

- Jan 19, 2015

Joe. said Jan 20, 2015

Good luck with every think x



Pam. said Jan 20, 2015

Sorry to see you go Hun. Hope all is well and take care ☐ xx

On other occasions when adult students found attending difficult and were ready to drop off the course, the network served to keep communication and content resources open and prevented two adults from leaving. Socialisation in one of those instances was a key part, as shown below, where student Mandy stayed on the course with social support maintained through Edmodo. In such an instance, the network was repurposed by the community to actively support peer-engagement.



Pam. said Dec 5, 2014

Did you get my emails last week Mandy? X



Mandy said Dec 6, 2014

Yes thank you. You are an absolute diamond. I cannot thank you enough.



Pam said Dec 6, 2014

Aww no need to thank me Hun, happy to help. ☐ ☐ X

As stated, instances of socialisation were more prolific in the adult contexts. It tended to appear later in the year, probably due to the gradual familiarity of the group in lessons, so it appears as a later aspect of the continuum, reflective of a new grounding reached once other thresholds have been secured. This may be overcome by establishing the network as a safe, informally inclusive context early on, though there is no guarantee that teachers and students will perceive a network on equal terms as a socialised context.

In interviews, students described their social media habits, though Edmodo was not seen as part of those. The students speak of communities on social networks like Facebook in either positive or negative terms. Negative reactions are caused by others statements and activity:

Tony: *It's kind of like I'm using it for a certain reason; I'm using it for a great purpose that will really help me in the future, as opposed to having a laugh for five minutes on the internet.*

A similar ambivalence to community was expressed by another adult student when describing Edmodo, implying misuse and antisocialism:

Jane: *Some students would post things that aren't relevant to the course... students still write in shorthand and use abbreviations on the site, on Edmodo... I saw people using it in the wrong way, but it's just something I have noticed.*

This same student, Jane, posted the comment shown in the box leading this section (*'pen drives are a student's best friend'*), ready to offer more relevant advice in a friendly manner regarding the use of supplementary tools. Taking Jane as a case in point, the socialisation element (which she reported as “background noise”) shows it is not something everybody appreciates, but Jane recognised the network as improving her opportunity to participate more in Phase Two, accounting for the changed attitude

between phases. Her core involvement propelled greater use by more participants (shown by the amount of adults posting and the high number of socialisation posts in those populations, in Table 10 (p.185) for codes attributed to the category of Socialisation listed at the start of this section and Table 15). Socialisation is also seen as a key post exclusively made by HEUs in either population (see Figure 10 (p.184) and 15 (p.199)), reflecting that 'socialisation' is a property of confident users.

Where Jane complains about the language used by others in the space, another adult interviewee (Joe, who has dyslexia) attributes his own increased presence in the space as helping him overcome inhibitions about his language. With Joe, this was seen through both socialised and self-organising posts. Joe's 'socialisation' posts were largely cohesive in nature: aimed at encouraging others via peer-support. These represented a 'way-in' for Joe and allowed for improved communication as the description he makes below arose from posting work first onto the site, with improvements from the publishing attributed to increased confidence. (N.B. By 'text language', Joe means informal, casual and grammatically incorrect language).

Joe: *...even if you did post something that weren't the best or... you know, you... I started getting a bit less self-conscious, you know. Like, at first you're like, "Oh, I want to make sure this is spot-on. We're going to post this on Edmodo." But after a while, you're like... you could write something pretty quick and just put it up, you know, if you just had a quick minute. I guess we started getting less self-conscious. The only thing I was a bit conscious of, if we were ever on Facebook, I write, like, text language; if it went up on there I'd never want to write text language just in case you read it. So I always started to use my full-stops and commas and write proper English on there.*

Joe links this to an improvement in the way he writes generally, describing how he subsequently pays more attention to how he writes on Facebook to others. This sense of self-presence is discussed further in 8.4, the Attitudinal Change section of the Theoretical chapter. Joe discussed a distinction between the communities of Edmodo and Facebook, where he added friends made from the class:

Joe: *...on Facebook... That's like... it's proper just social. I think there's about five or six of the class that I've got on Facebook, like. But I could literally be talking to them on Edmodo ten minutes before about work and be on Facebook talking about something totally different.*

This is an interesting statement, particularly when taken with the example posts below. The (adult) students openly post this to the group, when they might have done so on Facebook, but presumably they want to reach the entire community. It is illustrative of students keeping their online identities separate, with attitudes and behaviours exhibited in one space but not another more public one (and may be a good reason why using Facebook in lieu of Edmodo might see less engagement).

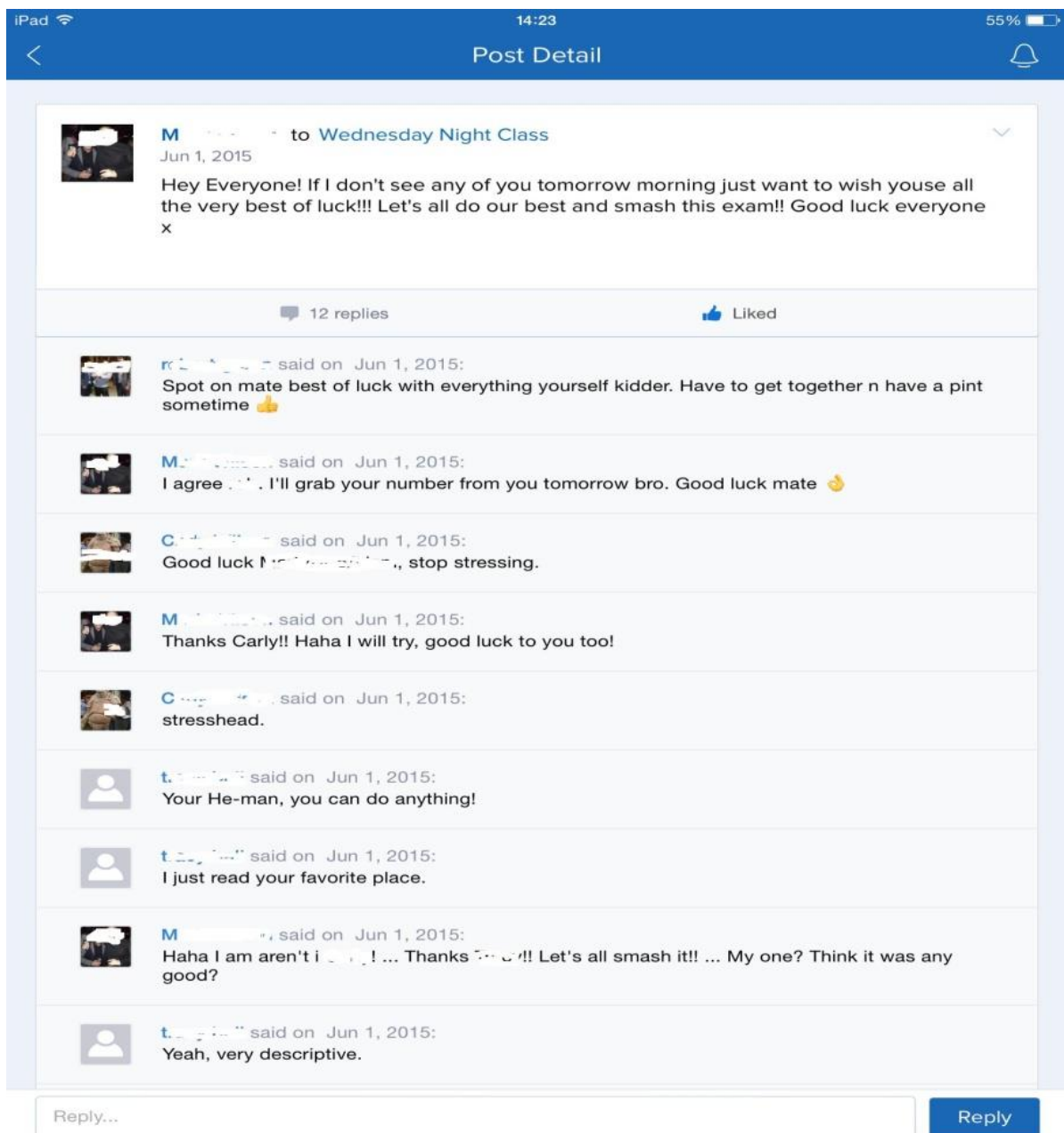


Figure 17 Screen shot of socialisation as peer-support

9.2.7 Sharing information

| | | |
|----------------------------|--|--|
| Sharing information | Sharing resources Offering answers openly Posting sample paragraphs of work Uses others work as guidance (Interview. Code) | <i>“Have discovered the grammar monster website, which is quite helpful”</i> |
|----------------------------|--|--|

At the level of English GCSE re-sit students, knowledge sharing as an aspect of constructivism (in terms of focused discourse where challenges are made to others claims) was reflected in the communicative actions of the Phase 2 Adult group more commonly than the Under-19 group. There were instances of sustained discourse, i.e. where students added responses to a teacher-started thread, but actual responses between students in reference to each other’s views, answers or contributions to a thread were rare. Mostly discourse was centred around the teacher’s comments, who reacted, stretched and challenged with probing Socratic questions to the comments posted. This could be countered in future cases by Blending discussion threads or shared resources into lesson time as a learning outcome or task, which may set it as a prevailing and expected action of use.

As students’ confidence developed, it was reflected by an increased voice in the network and – seemingly – a social rapport; ‘sharing’ as a normal, mobile action became manifest in different ways, principally with supportive or informally relevant resources but, as stated earlier, entirely by the adult groups alone. Beyond April, students across both adult and Under-19 populations posted extended examples of their own work – sample paragraphs of work and an entire essay in one case, reflecting developed levels of security and confidence that were not evident earlier in that college year. Answers were openly expressed, although this visibility was perceived in one (adult HEU) interview from Phase One as a drawback:

Sue: *Sometimes I felt a bit selfish for example if I had a good idea for my assignment. I wanted that for my work and not to share with others. Because they could copy and paste it while making no effort of their own to do the work.*

All others interviewed expressed this as an affordance:

Karina: *Actually yes. It was very useful when we were sharing ideas about each character in the Gatsby book. It helped to see different spectra and it also gave new ideas what to think about. It is also really helpful right now because other students share links where rest of us can find previous years past papers.*

Lorraine: *It helped me implement other people's ideas and gage the level that was expected of me*

This sharing of resources and information was perceived as ‘guidance’ by the younger LEUs who were interviewed. Jane expresses ‘sharing’ (of resources and ideas) as a primary purpose of the site, which was reflected in her own posts at a high level. Jane innately seems to perceive the interaction and participation of Edmodo as a stimulus to performing well, reflected by her regular use. Sharing information highlights a separate liminal action, moving from a perception of the network as teacher-lead/student-passive to student-clustered actions/communal. Moreover, students who ‘produce’ and share may develop understanding of new content reflecting schema as fitting curricula - even if the content is appropriated from online sources. Ideally, original content is generated to the network, but sharing information reflects an emboldened community confidence, different to those who lurk and ‘consume’ without providing resources themselves.

9.2.8 Goal-orientated

| | | |
|-------------------------|---|---|
| Goal- orientated | Self-motivation Seeks recognition/validation Seeks confirmation Request for feedback | <i>“Please can I have your email to send you my first draft of the What are your hopes and ambitions for the future question. Thanks”</i> |
|-------------------------|---|---|

This end of the scale highlights network use that is more purposeful towards objectives. The researcher here takes into account his own assumptions of what this constitutes. It includes expectations in terms of use (participation), with a greater degree of motivation arising as formal assessment approaches. It was not well reflected among students for whom the imposed compulsory re-sit course still remains an arbitrary subject they are *made* to undertake – namely, the Under-19 population. Indeed, this was shown in the LEUs interview, with one interviewee describing Edmodo as being “a hassle”, “cheesy” and “like a trap”. These comments show dissonance with activities associated with goals, such as participation in discussion threads, accessing resources, answering polls or questions. Moreover, through activity made on a mobile basis, choice of participation is bestowed to those students on whether to participate or not. This makes the notion of ‘flipping’ classrooms difficult to organise, as those not participating become excluded by default. Nevertheless, goal-orientation posts such as seeking feedback are clearer proxies of learning.

As such, in drawing upon Activity Theory (4.1), it must be considered that all interaction posts are made with objectives in mind: if a student performs unwillingly, they may see an end result in finishing the course, even if it is to complete actions so that they never have to do so again. To this end, ‘goal-orientated’ necessarily reflects behaviour that is characteristic of a certain focus on targets or objects. This does not have to occur at the end of the course, as more motivated, ready and confident students submitted work for feedback earlier in the year, so the network is used as a site for sustained goal-orientated behaviours. ‘Momentum in activity’ among eventual HEUs accrued as the course progressed. One observation was the obvious increase in use when assessments were due. Distinction was made here in two ways:

- Students posting notifications seeking help
- Students posting work for feedback

There is distinction between checking understanding, reflected in the lower end of the scale of inquiry (more reflective of types of questions to ensure something is correct) and goal-orientated as actions seeking improvement towards imminent objects (formal assessment, deadlines). The former (checking understanding) is typically primary to the latter (understands knowledge, checks process).

An example was work posted by an Under-19 HEU seeking feedback as goal-orientated action. As a shy, uncertain student, Brionny posted affective responses early in the course and developed confidence developed a focus on goals expressed through work posted openly with more frequency later. It's possible that the transformation in posting work openly in this instance can be accounted for by the earlier instance of Blended, where a large component of classroom activity was situated normally around the social network. The network comes to represent a locale for goal-orientation, as Brionny's awareness of the site's mobile functions enable her to become 'connected' and gain feedback. Plotting codes arising in interviews to goal-orientation reveal 'connectivity' as affordance – particularly when signified by 'immediacy' in support, in the words of the interviewee:

Tony: *I just found it really useful knowing that, you know, the tutor and members of staff are actually there waiting to help you whenever you need it.*

This is, however, quite different to self-determined learning approaches; the student may still need tutorial reassurance or validation (as may be expected) and in some cases this was interpreted as a desire for acknowledgement that students were motivated:

"I'm still working on mine I'll try and get it to you as soon as thanks"

or, alternatively, a reinforcement by the student who posts a declaration of intent, like a memo to themselves:



Laura B._said Dec 1, 2013:

Got it too , going to get started later

Here again, the network supports an assertion of that intent and acts as a pledge to reach goals. While there is no guarantee that this will ensure outcomes, the student's notification indicates self-determined behaviour of goal-orientated action.

9.2.9 Enhanced

| | | |
|------------------------|--|--|
| <p>Enhanced</p> | <p>Directed discussion on learning</p> <p>Sustains dialogue or discussion thread</p> <p>Situated (Pulling everything together in one place – int.code)</p> <p>Publication <i>aspect(technical feature of site)</i></p> <p>Reflection <i>aspect (technical feature of site)</i></p> | |
|------------------------|--|--|

Enhanced was regarded as optimum uses of the space. It has a higher focus on learning aspects and reflects much more self-directed attitudinal responses to the context of the space as a learning resource, supported by socialised elements and focused to objects. Potentially, with peer support arising from socialisation goal, orientation can be partly achieved through exploring others work and how it can support their own endeavours:

Joe: *Trying to read threw everyone's work tonight. Pick up on word and phrases I wouldn't usually use to use in my story . Really good stuff so far trying to comment on everyone's .*

This example represented an adult HEU using others work to build on understanding of creative writing at what may superficially appear to be a simplistic level, but it is both peer-supportive and orientating for Joe. He demonstrates engagement, appropriating aspects of others work as resource to goals through an unself-conscious publication of dyslexia (evident in misspelling). What is termed 'enhanced' means various things: to a student, it may mean working between sessions; to a teacher, it can mean stretching ability to new potential. Bound by learning technologies, 'enhanced' implies exploiting a resource's affordances, i.e. doing something that was not available before. For the

last of these, the affordances apparent from the example are an enhancement of learner time and personal capability, or static content revisited at learner pace and the mobility that allows this. The learner's self-determination enhances sporadic lesson times with agency actions complemented by network functions.

There are similarities in the separate coding analysis of this enhanced stage with the codes from the LTCA treatment of Constative communications and – particularly – Dramaturgical actions. When students became more engaged, personal opinions were routinely expressed and students, particularly adult ones, were dynamic and forthcoming in drawing from life experience (see Appendix 2 and 3).

Enhanced combines exclusive properties of using the online network for personal purposes. This was best exemplified by Adults in Phase Two, who – as previously stated – went beyond what occurred in the other populations by posting a wider range of types of use and with greater purpose. The reasons for this distinction from other populations are attributed to the socialisation element as a predicated cohesion of students' goals, with communications that were routinely supportive and affective. This is best seen in the Open Publishing intervention, which resulted in more comment exchanges between more members of the group than in the other population in the intervention (Phase Two Under 19), with adults galvanising peer cohesion with encouragement and praise. These instances may be labelled as socialisation, acting as cooperative and affective binds, symptomatic of ownership. When compared to Under-19s, there was a greater tendency towards self-efficacy, as represented by Jane or Joe, who were more personally motivated towards self-improvement, used the network to demonstrate that and encouraged others to the same object. The significance of socialisation towards enhanced dynamics of use shows the importance of Blending to inculcate mobile activity. Strong 'digital' role models model positive performance behaviours, such as Readiness for Learning and sharing resources impact further once social cohesion is forged. This improves potential for momentum to occur in communicated actions, unifying community responsibility towards increased self-determination.

A concern of this research is the direction of educational provision and this analysis concludes by returning to the research problem regarding disengagement: the outline

of what constitutes *enhanced* is in sharp contrast to the more problematic sense of disengagement presented overall.

'*Enhanced*' was conceived almost singularly by some of the adults, especially in Phase Two; adults, who were studying at a post-compulsory level voluntarily and were perhaps inevitably bound to take more ownership and motivation of the resources of learning, including Edmodo, over Under-19 school leavers. Combining the age-demographics of the groups (Phase One, cross-college) had no bearing on uptake for Under-19s; interventions such as Blended Learning had a more positive impact on increasing negotiation of the site, with a small number of Under-19 students who were motivated and diligent anyway, and having Repeating students visibly engaged in the roles described above did not appear to result in increased group performance overall. While increased independence is raised in many cases, there is no relation between this and an ability to fulfil the course requirements by proxy without classroom, face-to-face contact. The conclusion to this is that no case can be made that online learning, whether enhanced or not in individual or community instances, can substitute face-to-face learning provision among this demographic type; online networks such as these do, at best, augment the experience by adding value to that encounter, but mainly in the Adult population.

Early in this thesis, it was pointed out that the researcher wished to avoid the use of value judgments, as simplistic of arguments surrounding the uptake of technology for learning. Clearly, there are varying contexts where technology may better be appropriated and it is important to retain the views of students in order for the inclusion of their regard of technology. As such, the next section explored the Affordances that rose as values from this exegesis of the four content analyses, taking on board the critical affordances outlined by Crook (2012), before discussing the isolated key parts that underpinned effective uptake of the network by a community.

9.3 Affective disclosure discussion

As explained in 7.2.4 on Saldaña's methods, the Affective code was used to identify emotions, attitudes and beliefs expressed. This decision was made due to the high frequency of them in the Phase One analyses, which was a surprising feature of the data. Indeed, this may be considered an anomaly of use by students in the demographic and especially as these are posted online, because of the general

reticence observed in students to generally reveal thoughts or feelings, which suggests a private world of identity within the classroom and institution. It is, for example, extremely uncommon for students to make the kinds of disclosure declarations orally in person whether to the group or the teacher, yet they appeared increasingly within the network – albeit within the adult group more than the school leaver cohort.

It is, as was stated earlier, a theme common to all phases that adults are more likely to post emotional self-disclosures – whether to try and get attention from the teacher or group in a search for support. This may appear to be a feature common to social media generally. Often these disclosures were negative and routinely self-depreciating:



Bella. said Oct 10, 2013

I feel a bit stupid - I can't find the smaller groups. Where do I click please?



Bella. said Oct 10, 2013

Ah. They're listed now. They must only come up when you've added us. Sorry. It's probably me not listening



Me said Oct 10, 2013

My fault, actually! (For once...) I now know how to add people!



Bella. said Oct 10, 2013

I think I might be getting the hang of it now...



Camilla. said Oct 12, 2013

think i had the same concerns but have added my comments. will we be able to see all views soon, it would be interesting to see the observation of other characters also

A growth in confidence in Bella's confidence is detectable here following the exchange, perhaps due to the teacher's mirrored self-depreciation '*My fault, actually! (For once...)*'. In this instance from Phase One, the teacher and students navigated the network together, creating mutual reassurance of uncertainty in an online mirroring of community behaviours.

In another instance of disclosure in Phase One, a Under-19 student posts a frank admission showing simultaneous appreciation to another student for sharing their essay and her own difficulty:



Alley. said Nov 9, 2013

This has helped me a lot as Im really struggling with this.

On this occasion, the teacher did not respond to the disclosure, but sought the student to offer face-to-face support. The reason for this is that the comment is directed towards another student, but also to provide face-to-face feedback, which it was felt the student, identified as LEU, needed.

Throughout the study, affective examples were used liberally. Within an anatomy of 'situated literacy', they can be taken as indicators of cohesion from student to teacher, community and goals. Affective statements, so unusual in the classroom, apparently become normalized when visibly published. Phase Two adults particularly posted a range of affective statements, not limited to negative ones, but declarations of enjoyment, gratitude, encouragement and, in several instances, improved confidence, suggesting that public disclosure of emotions may diminish their negative consequences. Also visible was how the Phase Two adult community offered support

to one another following such disclosures, suggesting a socially cohesive offline network augments a cohesive online community presence, with the affective statements helping enable agency, such as support, resilience and momentum in activity towards goals:



Me said Jan 22, 2015

Nice work, Martin. A great piece of writing. Keep up and finish the linked piece explaining how you wrote it. Let me know if you have any questions.



Ryan. said Jan 24, 2015

Quality that mate proper emotional here, got me in bits lad. Really good descriptive skill and use of vocabulary . I liked the way you described him dragging himself out of bed setting the feel of dread straight away and escalates threw out the story. Proper deep were he's sat at his desk in work felt like I was there and I've never even worked in that environment.



Martin said Jan 27, 2015

Thanks very much for that Howard and Ryan I really appreciate. Just basically took what I have gone through recently and put it on paper. Thanks for the positive feedback it means a lot!

The Open Publishing intervention also resulted in disclosures that informed good practice. Posts included peer-support, motivation and Strategic actions, where Ryan has demonstrated an understanding of storytelling techniques.



Ryan. said Nov 27, 2014

Read all the story's some really great writing . Amazing how changing the sentences around can engage the reader a lot more . And give a lot more information think I'm

going to start my story again from scratch using these techniques. Tracy b story was really gripping , very emotional n heart felt u could feel her pain in the writing .

The group posted messages with increasingly diminished teacher intervention, seemingly gaining momentum through posts of peer-support showing social cohesion (among a central core network of HEUs) displaying improved confidence right up to the eve of the exam (See appendix 2).

Chapter 10 Discursive evaluation of affordances

10.0 Organisation of the chapter

This section revisits Crook's (2012) affordances of digital technologies, which were considered in the Initial coding stages. It acts as a focused consideration to feed into the recommendations (Chapter 12). Affordances to an educator may differ from a researcher and be unapparent to learners, so extrapolating these strands highlights diverse perceptions, integrates learner voice and can help eliminate assumptions about how technologies serve learners. FELTAG (2014), for instance, assumes learner's natural propensity and familiarity with digital tools, placing these assumptions as central to design to argue that what is done to or with students is mediated by educational theory. However, as Activity Theory showed, uses of tools are personalised and individual. This would likely result in a disparate consensus of what affordances are and how they are operationalized and realised. In this respect, the writing of the section aims for an assimilation of the learner perspective, balanced with the researcher and teacher's point of view. Application of the network's functions arise from its potential, for instance, for access via a mobile app; an expected affordance to a teacher may be remote access to learning activities, but if not met reasons were sought during interviews. With the affordance of mobility as central, this is evaluated below, before an evaluative discussion of Crook's affordances (publication, inquiry, collaboration, web literacy) from this study, before discussing affordances identified by learners in the interviews.

10.1 Mobility

Mobility, frequently cited as an affordance, was taken as an assumption of the researcher in the first instance as the opportunity for i) physical mobile learning activities (that were not well conducted in this study, due to time and curriculum boundaries, for example, in the opportunity to take learning out of the classroom as a group) and ii) mobility of the learner as integrative to formal objects. In this second manner, the study can be considered partially successful to these objects where interaction within the network enables proactivity and reflection. This, realises a profound 'enhanced' activity: mobile access integrates learner to activity and activity

does not become resident only in the physical classroom space. This integration (to activity, to content) – or *'joining-up'* was expressed by participants in interviews and serves to reinforce understanding at a cognitive and behaviourist level, i.e. the 'what' and 'how' aspects of learning a curriculum. This was borne out by participants whose motivation to understand and remember detail was afforded by mobile access to resources and conversations within the network. Mobility is a sustained connection to objectives that underline continued negotiation of the varying thresholds towards fuller engagement.

Alternatively, dissonance hampers the disengaged Under-19 learner's online experience, who perceives the classroom as the residence of curriculum activity. More motivated Under-19 users exploit the network to assist in learning and the common factor is a 'Just-in-time' basis, characteristic of Andragogy. For HEUs, the network is an orientation of experience and mobility enhances conventions of the classroom, communication with a teacher or the traditional textbook as point of reference. Adversely, the LEU may become disorientated, arriving to lessons struggling to assimilate themselves to the previous week's learning. *Reflection* is an affordance of mobility, being the means for which technology is exploited. Furthermore, reflection becomes assimilation between learner and object facilitated by accessing a mobile platform, with the formal institution somewhat side-lined and – if the weight of activity is manoeuvred towards the online network – ultimately augmenting offline experiences. In this study, mobility added value as an extra reinforcement and reflection to classroom content and enabled some front-loading of future lesson resources. It is no coincidence that HEUs made more posts from outside of the college, as mobile, orientating their selves to the course. The risk is of inhibiting inclusion, since LEUs become dissonant to pace if others progress as supported by the network. As such, mobility is an affordance fraught with tensions, since activity via mobility may enhance HEUs' experiences and disorientate LEUs' ones.

In short, for the HEU mobility affords:

- Reflection
- Reaction
- Proaction

What appears under-utilised as affordance was Crook's identification of inquiry.

10.2 Inquiry

In its most literal form, inquiry was reflected in the coding analysis as instances of remote questions posed to the teacher or group. This was seen in some respects (albeit, gradually) as a Community of Inquiry became reflected at its most effective (underpinned by properties of socialisation between the group) within adults by ‘checking’ (as a code). Checking questions were more often made in a *self-organising* sense or in *seeking clarification* of what or how to do, rather than focused on learning content, (e.g Anna (adult student) asks: “*Should we try and include around that amount of quotes in each of the paragraphs we do for each setting? Will we get a higher mark the more we quote from the book?*”) rather than the hypothetical “*can you explain the meaning of juxtaposition again?*”). Under-19s posing inquiry did so in the same fashion – as checking. This reflects solid understanding of problematic areas of curriculum knowledge (‘what), but uncertainty with process (‘how to...’). Yet participants disclosed views that students were reluctant to appear ‘uncertain’ of ideas lest they are publically embarrassed, even where others asked about processes of activity.

Under-19 HEU Tony reports that despite being able to receive an answer to a question almost immediately, others felt reluctance to bother the teacher outside of standard institution hours. This was less a divergence with authority, than inhibition of intruding teacher’s private world subverting the ‘mobile’ and ‘social’ affordances of networks:

Tony: *...if I wanted to ask you a question through Edmodo, I’d post it straight away, might give it a second thought about what I say, why I’d be asking it, whether it can wait or not, and let’s just say if it is a Sunday afternoon, if you’ve got the time to respond that’s fair enough; if you don’t and you can only respond later on during the week, that’s still fine.*

Yet of LEUs, he offered:

Tony: *I think there are some students that think, “Oh well, I don’t want to impose, so I won’t question, I’ll just wait till the lesson,” which doesn’t really make much sense.*

For LEUs, inquiry “belongs” in classroom locales, while for Tony the network enables inquiry that couldn’t otherwise be communicated:

Tony: ...*Otherwise I'll forget the question and then it will end up playing on my mind for a while, trying to remember what it is, which ultimately can be really frustrating and forgetful during the lesson.*

Inquiry as 'anytime, anywhere' is an affordance implicitly linked with mobility in this case, through a convergence of *lifeworld* with the institution ('the teacher') and object of inquiry ('response'), but this points to a dichotomy between high-engagement and low-engagement perceptions of normative actions centred around uses of the site, which a teacher needs to make clear from the outset (either: 'post questions at anytime', or 'post questions only during...'). The HEU exploits affordances by regulating their learning support needs, discovered by Tony in his repeating year (from Phase One to Phase Two), suggesting an enculturation of the network as norm, not solely based on inquiry but a wider range of posts.

10.3 Inquiry framed on Discussion Threads in Edmodo

The teacher aimed to 'stretch and challenge' by assimilation of inquiry with mobility through remote discussion threads posed to the group between sessions; this saw the most sustained results when questions allowed for subjective and informal responses, i.e. *'why do you think people climb mountains when there is so much risk involved?'*; a high degree of (voluntary) participation in these discussion threads arose from the Under-19 group. This represents two unexpected anomalies in trend of activity; firstly, high response instances occurred early in the course (in both populations in Phase Two), giving encouragement to the teacher of a sense of ownership and response by students; but, secondly, despite this promising start, low levels of interaction between Under-19 users as the course progressed decreased any momentum of active use among that group. The reasons for this are the gradual ambivalence towards the compulsory course in general and a redolent sense of pressure articulated by students regarding their workload, which became manifest in participation.

Adult groups were more inclusive in threads and became a useful means of pooling ideas and references for learning. Gains helped negotiate confidence in use, particularly by basing threads around less formal, content-driven topics, and in cultivating independent approaches to the platform. A key difference still emerged, with Under-19s participation in Phase Two in such activities dropping off, with blank

responses recorded later in the course, while Adults participation increased. It's difficult to account for the different reasons for this: no participants referenced the instances of the threads as a feature or utility of the site, but adults started their own threads – less focused on content, and more on process, affective support, peer-feedback, self-organising, studentship tips ('where to be, what was done, where to find exam papers' etc.) suggestive of a convergent community repurposing the network for interpersonal support.

Both of Crook's next affordances of web literacy (Publication and Collaboration) may be viewed ostensibly as strategies made by the teacher in the learning experience, as discussed next.

10.4 Publication

The publication element was utilised strategically by the teacher and realised affective cohesive support within the adult community, in the shape of encouragement and positive reinforcement by members to creative writing openly posted ('publication'). In intrapersonal terms, it was cited in interviews as a learning activity that promoted greater confidence as a value for HEUs, while LEUs described its value in the transparency of surveillance afforded by open-publishing assisting them with knowing of what to do – an unintended regulating of actions from the community. In Phase 1 interviews, HEUs complained of the visibility aspect of the space, as less engaged students were able to use their ideas: an attitudinal negation of social media as platforms for sharing. For LEUs,

Greg: *You can find inspiration through other people's work, and like using that... the website and stuff like that ... did help because, like, basically looking at other people's work, you get inspiration from that, basically.*

Publishing can be initiated as a teacher's Strategic Action (an instructed task) allowing an instructor to ensure participation, that work is completed and allowing for feedback or assessment as institutional values. However, this did result in some members (possibly with lower levels of confidence) posting the resulting work as messages rather than publically posting ('publishing'). When students post work privately, by direct message, it is less publishing or sharing, in the spirit of social media, and more

'submitting to the teacher' – an action that the teacher aimed to disrupt through this network in order to promote an open situating of language.

In the classroom, the instruction to post work openly often resulted in surprise and apprehension by students, assuaged by the teacher ("*this action is not being done to judge your work, but to help you develop your quality of writing by being conscious of your reader*") or when students noticed that peers posted their work without compunction.

The 'direct messaging' of work is antithesis to publication and represents a negotiation of network use, as the Strategic Action 'Post here' is rejected. This negation represents a decision, though is problematic where publishing is designed to inculcate a social situating of language. After the first publication and consequent positive feedback, it became normalised in practice and student behaviour responded by increased open publishing. HEUs showed diligence and conscientious organisation of their writing, editing carefully before subsequent posts. HEUs reported appreciation for feedback from peers, and some wished for more constructive criticism beyond knowing only what worked well in their written pieces. Increased confidence was reported by Joe with 'Open Publishing' helping him become "less self-conscious" and paying careful attention to grammar when posting. In observations, it prompted other students to take extra care before posting, checking the spelling of words in their posts. With less confident students, inhibition may make students uncomfortable, potentially damaging confidence and deterring further use of the network. This presents problems regarding the visibility inherent to a social network, so must be considered by educators wishing to exploit the affordances of publication.

When posts are made privately, shyness and reticence are explanatory affective codes that correspond to these LEU profiles. Of course, shyness and reticence are two separate states. Shyness (as introversion or low confidence) was expressed by LEU in interviews as a factor in non-use, though some HEUs also experienced shyness and sent their work in private messages. This shows an awareness of the visibility of using the space and helped some shy members receive support through teacher feedback. Yet literacy remains a private world. In group work, individual reluctance to post visibly was overcome as members posted with less apparent compunction. Grouped posting may alleviate initial shyness.

Reticence, while it may be linked to shyness, is perceived as ambivalence and/or resistance to coercion into the Community of Practice. It may be a symptom of Low Engagement, as it was noted repeatedly in observation of classroom LEUs whose attainment was mirrored by low engagement network activity. In some cases, LEUs openly and wilfully articulated a refusal to be co-opted to the network (*"I'm not joining that"*), reflected by both LEU and HEU in interviews describing perceptions of the network as "a trap" (see coding of responses to *'Perceptions of Edmodo'*, in Figure 12, p.193). Reticence, as 'anti-social', is mapped as symptomatic of fatigue, discussed further in 11.9.2. However, in the instance of the quote above, the LEU appeared to cross a threshold of motivation ('membership') when won around by continual institutional interventions regarding behaviour, attainment and attendance issues, and the student either realised the importance of the course or improved by submission. Correspondingly, this upturn in attitude was symbolised by joining the network as he signed up in a subsequent lesson and submitted work (albeit, privately). Clearly, the difficulty to educators is that this action came too late (occurring as it did in January) with further thresholds (e.g. 'membership') to fuller engagement still to negotiate.

In those cases of 'membership', publication as instructed (for example during blended use, i.e. *'Please post your work to the wall at the end of this lesson'*) did not necessarily bind LEUs to the wider affordances of the network. Work was posted to the wall, encouragement and feedback given, but not received until subsequent lessons when those students logged on and found the notification of feedback. The work was submitted formally, but uncorrected. The reason posting was instructed in early stages was on the basis that students may see their own work themselves as composite of the site, rather than a series of teacher's wall posts. While this was effective with adults, who complied with the instruction and followed up with further independent posts of their own, this Strategic Action had no discernible impact for Under-19 LEUs who presumably saw it as 'a trap'.

In recognition of assimilating student voice within this section, 'Publishing work openly or privately' becomes a decision related to a 'disorientating dilemma'. This decision-making is an important threshold in nurturing an enculturation of network use as norm. Repeating tasks like supported writing drills and sketching activities (described in 10.9 on interventions and example shown in Appendix 4) can support later Open-

Publishing, which appears to have potentially positive properties in improving attention to detail.

10.5 Collaboration

As with publication, collaboration was realised through the network when designed into tasks by the teacher. Beyond that, it is clear from the coding of activity that students did not constructively collaborate on tasks independent of instruction, although there were instances that resemble co-operation: sharing information, giving support and feedback. Collaboration as teacher-strategic interventions is described in 10.9.1 showing how the strategy built upon affordances of publication. Other instances of collaborative work were attempted as strategy with less success, such as clustering learners into small groups on Edmodo to share notes with varying success in that HEUs often felt ambivalent after sharing due to LEUs reticence. The same was reported in other instances and feeds into the conceptualisation of Social Media Fatigue in Chapter 11.9 as a negative value of use among students.

Elsewhere collaboration worked better in a blended student research task, where small Under-19 groups were tasked with differentiated roles (designers and online and mobile (i.e. in and around the college. See appendix 6) researchers) designated and chosen by the groups, with those roles interchangeably switched between sessions. In collaboration applied to offline activities transferred to the network, Under-19 groups were observed working towards outcomes with strong engagement, incurring a sense of group responsibility for the data and content generated, which again was published to the network by groups who worked towards deadlines and scaffolded outcomes.

This project-based element of the curriculum incorporating use of Edmodo as blended and multimodal was reported positively in interviews with LEUs who appreciated it as:

Greg: *More creative. Like, because we got, like, to use videos and the presentation side. Instead of just writing, like, on a piece of paper, you got to do a more visually pleasing kind of piece.*

That Greg is an arts student fits with a description of the network use that didn't naturally appeal to students of other vocational courses, highlighting the diversity in purposeful use and affordances taken. This would point to the networks functionality

range as suiting varied tastes, but not as singular, e.g. Greg and other LEUs didn't participate in discussion threads, rendering these redundant for elements of the course. Yet Greg focused on an "insight" into others resulting work afforded by publication – collaboration by appropriation, as:

Gregg: *We took some parts of different people's websites*

[N.B. by 'website', Greg means other student's work]

It was sometimes apparent that (mainly HEU) students requested responses from the community, but didn't receive any and that this was reported as a source of disappointment in interviews, pointing to a sense of divergence:

I: *What is the purpose of it? How would you define its purpose?*

Jane: *The purpose is to share... share resources.*

I: *Okay. And maybe...*

Jane: *Okay. Share ideas.*

I: *Yes.*

Jane: *I'd say it's... Post comments on student... other students' ideas and posts...I'd say with Edmodo not enough students are using it. And I think that's quite disappointing.*

I: *Why do you say "disappointing"?*

Jane: *Because... We're all supposed to be in the course together and only a few students contribute to it.*

In those instances, the teacher would wait and watch before intervening and if not forthcoming, would post comments. This highlighted two details: firstly, some students do not check-in or check-in only to read; secondly, that students view teacher and HEUs presence as information source. Overall, collaboration has not been an affordance realised independently in this case study, but can be scaled with more participatory success when designed strategically. As mobile, the best cases of co-operative learning, showed members posted encouragement, praise and tips for procedures.

10.6 Blending *Lifeworld* posts as inclusive of peripheral voice

Of the different phases of the case study the more prolific uses in Phase 2 groups was due to the easier access to computers in lessons. This enabled a readier negotiation to network access. Blending use into classroom-based activities – either in real-time (“share your group findings to Edmodo” and “Access the document on Edmodo, which has the lesson instructions”) or at the end of lessons (“Post your finished work to Edmodo and check-in later so you can receive your feedback”) increased orientation to the site as a mediating tool for communication and objects. Although this can mainly be said to be HEU, in the adult Phase Two group, more students became HEU due to access promoted in lessons.

As shown in Table 10 (p.187) in the Adult Phase 2 group, socialisation emerged that increased autonomous engagement in volume and types of uses. Subsequent activity showed students’ problem-solving, sharing concerns, supporting peers, posting resources and tips were predicated on two factors: blending, and group dynamic, which may necessarily accompany one another given the sporadic nature to meeting once a week. The marked increment in activity also saw higher instances of affective support as social bonding, with more regular interpersonal posts of encouragement, gratitude and empathy unprompted by the teacher. From this increased behaviour, Table 10 (p.187) shows the segmented most prominent types of posts, with *Lifeworld* comments appearing highly (alongside Peer-support and Organisation), reflecting increased ownership of the network, since *Lifeworld* is defined in this study as types of posts that reflect informal knowledge brought to the course (even where they may have no direct bearing on learning objectives of the curriculum). While this may be the “background noise” of the network that frustrated the Repeating student Jane, it also represents enhanced engagement as ownership. Educators may either choose to perceive these as extraneous and discourage them through Normative Actions (“keep posts relevant to learning objectives only”) or encourage wide discussion. To this writer, they underline part of the terrain of socialised learning and enable free expression in the network. Just as in the classroom, it may be necessary to channel such ‘Lifeworld’ declarations to tasks at hand where possible.

Below are examples of Lifeworld posts from Adult Phase Two where the first, by Jane, is directed towards the curriculum, while the following post is less formally relevant.

Jane said Feb 11, 2015

Seeing this post I realised I have Sheryl Sandberg's book 'Lean In'. I'll be honest I've had it for a while and not read it. I should give it a read. I bought with being talked about (by women) just skimming it now to see it has a lot of ideas about men and women. Referring to school teachers interact more with boys, call on them frequently, and ask them more questions. Boys are more likely to call out answers, teachers listen to them when they do. When girls call out, teachers often scold them, for breaking the rules and reminding them to raise their hand.

Penny J. said Dec 8, 2014

It was a documentary series on PBS America. I think it was just called New York if my memory serves me right. The episodes are set out in years from the 1800's to late 1900's. I will have a look on YouTube to see if I can find it. I have seen Boardwalk Empire advertised on TV but have never watched it to be honest, will have a look at it, thanks

This may seem of no clear significance to the learning objectives, but can be regarded as liberated communication, drawing on students' lifeworld to create a more social, less formal, context. Occurrences of this kind were never enough to cause serious disruption to focus, but strengthen the network's member presence and activity flow. Through a communication platform, a network of community members should afford some degree of personalisation to teachers' aiming to understand and support students by introducing modes of representation from everyday life which support a meaning-making learning process. The examples above show *Lifeworld* posts that were made independent of the classroom, students' exploiting the mobile access following classroom blended activities that drew them in to the network. In these instances, Jane's post is more directly linked to learning objectives; while Penny's post was less directly relevant, it helped situate voice. *Lifeworld* serves as an access point to learning domain – a circular approach, perhaps, given the tenuous connection to learning objectives, but one that helps bind peripheral members like Penny into the network and to network discourse.

10.7 Inclusivity and differentiation – Vignette: Joe re-writes his story

It has already been shown (in 10.5) how LEU Under-19 students studying an Arts course appreciated teaching elements that allowed for multimodal communication. This can be perceived as an inclusive dynamic of the platform as a text in its own right for English re-sit students, a notion that resonated with a 28 year old HEU adult student.

Joe's school education was complicated by his dyslexia, which went undiagnosed, resulting in him leaving school early. Joe described the interpretation of language writing techniques in multimodal forms used through the network:

Joe: *Everyone kind of put a song up or put an advert up or a link to anything. You know, like, it didn't have to be text, it didn't have to be writing. The text that was on there was mostly, like, for people who had missed the last class or... so we didn't have to hand out sheets in class. You know, everyone could... everyone's got it there, accessible in their phone or on their laptop; it's right there in front of them when they need it, instead of handing out sheets and printing them every class ...*

Within this response, Joe also views the availability of resources posted to Edmodo as supportive of those who have been absent. When asked whether people read through the numerous documents posted, Joe elaborated on how archived banks of resources assisted with his own self-efficacy and autodidactic approach to comprehension, reflection and self-awareness:

Joe: *I did. But sometimes I got pretty lost into what I was looking for on them. So I'd be reading them and I'd be, like... Like, I'd read it over and over again, and then I'd get lost in myself and think, "Hang, on – what am I trying to take from this?" You know, like, sometimes... But that was probably down to me just not understanding at that point, because a couple of weeks later, once we got further into that project, like, I thought, "Oh, bloody hell." And then if I'd probably read back through it, I would have*

picked out twice as much, you know.

This supports assertions that technologies enable reflectivity, assisting metacognition, such as problems with comprehension that could cause dissonance in the fixed space of a classroom. For Joe, access enables the assimilation of new knowledge, supporting joining-up and forward thinking that is regulatory as planning and preparedness. Joe was a self-contained student, able to work independently and with a low threshold for patience from past academic experiences but high intrinsic motivation to improve; this unique determination partly stemmed from negative past experiences in school that made him walk out of the classroom and ultimately the school itself at 15, returning after nine months to collect his exam results. Joe's renewed drive to succeed was based on lifeworld disclosures: wanting to help his children read and not have similar negative school experiences.

It's interesting to note an incident when Joe experienced difficulty after missing a lesson, became frustrated and angry and left the classroom; after calming down, he returned and responded with emboldened determination. Subsequent to this incident, Joe started to increase his volume of mobile posts to ensure he understood and had caught up and became a prolific subject in the network from then onwards after revealing in interview how he's initially dismissed its value. In the dramatic departure to corridors, Joe expressed his frustration with his dyslexia and imposed exclusion on himself and leaned close to repeating this resignation on the course, but, as an adult and parent, he found greater impulse for success, found satisfaction in supporting others, which impelled an intrinsic motivation and will to stay; the network symbolised this commitment and gave it extra opportunity for action beyond the classroom. The temporal frustrations that a classroom represented were overcome by having its 'mirror' available in the context of the network: there, with space and time afforded by mobility, Joe could re-frame his past lifeworld experience and assert an alternative identity that he authors himself. Through notifications and by checking-in habitually on the factory floor or at home (as reported in interview), the convergence of two identities is integrated and Joe becomes a positive,

capable (and social) learner. The network helps facilitate that transformatory experience by adding an extra layer to his academic experience in FE.

Experience of using the network is thickened for students where the teacher is a supportive presence, rather than continually directing actions or negotiating targets. In interviews, Joe and Tony shared identical insight of their peers use, suggesting that students who are quiet or shy, lurk and read posts – a statement confirmed by the Under-19 LEUs with dyslexia who reported logging in a few times a week – for vicarious support. The networks main support to inclusivity derives from an inversion of the notion of ‘flipping’, where students prepare for a lesson in advance; in the forms expressed here, the reverse is the case, where students’ make repeated views of content to aid comprehension or revisit targets set. This was not exclusive to HEUs, as a LEU Under-19 student with dyslexia expressed in interviews.

Karen: *It gave you a list of the lessons, the lessons you posted on there, so you could, like, just recap on what you’d missed.*

Karen’s own open posts were minimal, except for when working in a group on the network; she started a little later in the course than others, but as the year progressed she began to request resources (by direct – private - message) and to post responses (by direct message). Alongside the teacher’s involvement, the attribute of ‘visibility’ of others posted work helped this student learn:

Karen: *You could look back on how other people... like, what they say, so you could compare it to yours and look for the difference.*

Karen gives an insight into laissez-faire attitudes towards participation:

Karen: *It wasn’t, like, necessary to use, it was just there if you needed it.*

This is an interesting response to a question regarding reasons for not using the site, as it shows an awareness of the form and its purpose for objectives. Karen indicates that it serves a need. Google, Wikipedia, and Open Educational Resources are all *there if needed*, yet the network, for an educator, is an opportunity for inquiry and taking advantage of the different affordances available. To a Low-Engaged user,

however, it only fulfils individual need, reflected in a 'just-in-time' approach (i.e. as exams or deadlines approached). Contrasting this response to a reflective statement from the 'Repeat-repeat' Adult student Jane (who went from LEU to High-Engaged in Phase Two) in interviews at the end of Phase One reveals a sense of what she would do differently as socially negotiated, rather than individually derived:

Jane: *I probably would have got more out of my ability if I had made [more] contributions and interacted with my classmates and tutor over Edmodo.*

Prior to this, Jane admitted she used the network every day in Phase One, having made it available as an app on her phone but as peripheral:

Jane: *I think we were able to refer back to documents we had worked on or been shown in class. I also think it was good to read over my classmates' thoughts and ideas when they did contribute over Edmodo.*

The trace of 'regret' in Jane's first answer was borne out in Phase Two when she repeated becoming a HEU; Jane places emphasis on success as participation (with others) as a realisation of self-responsibility. This view is opposed by the Under-19 LEU Karen, whose view of use as 'not necessary' appears a complex that is difficult to reconcile: if high instances of participation improve opportunity to succeed, how is it possible to convince students that 'necessity' does not equate to 'compulsory', since repeatedly in classroom observations, refusal to participate in the network appeared to symbolise an expression of individual divergence against compulsory resitting. Adversely, where teachers negotiate the norms of use as informal, younger students particularly may take a diminished view of involvement and self-responsibility. In Karen's case, a value of self-responsibility aided momentum towards summative assessment as participatory actions, even at a discrete (private message) level, increased. This 'change' is an indicator of personal development from disengagement to improved confidence, if not enabled directly through the network, then given opportunity to demonstrate and practice it there.

There were HEU low-literacy students who requested continual affective reassurance, and – as with Under-19 LEU Stacy discussed in 9.2.3 (Disorientation) students who sought confirmation, clarity or extra support through face-to-face interaction. There is significant risk in leaving students to regulate and direct their own learning in online

domains – not only in students with dyslexia or learning difficulties, but who perceive education as socially experienced and classrooms as socially integrating and motivating contexts. As previously seen in 9.2.6 (Socialisation), the use of the network helped ensure Mandy stayed on the course when she moved to the area of the college – but the FE classroom gave Mandy an inclusive community that a network would not replace. Inclusion may be provided by an online network, but a network may also impede inclusion. To this end, educators need to be cognizant of students who cannot (or who simply do not) access an online network, whether through domestic, economic, emotional or literacy boundaries, since it may be recalled that while the network may enable some to join-up between sessions, the curriculum must still, at present, move at the pace of the classroom as a marker, rather than the online space, which is secondary and augmentative.

10.8 Students' own identified affordances of technology from this Case Study

Below is a table that groups the affordances together. This is made to summarise the discussions above regarding the separate Affordance categories arising from the analysis. It is presented in three columns to show the labels of affordances from the perspective of the teacher-researcher, contrasted against the self-reported affordances identified by all students in interviews. The third column presents main affordances drawn from the content analysis of how the network was being used. While there is agreement in the way the network has affordances, the labels are sometimes different, and may have values attributed to these differences. Such aspects were used in the theoretical sampling (Chapter 11). It can be seen, for instance, that what is open and visible almost enables a latent behaviour in some students (under 'surveillance'). In that case, students viewed one another's work, but it could well have prevented their participation in the community, since they took what they saw as correct without checking or contributing. This also enabled a sense of letting other students work for them, which bred some resentment. Openness also appeared in observations to facilitate plagiarism.

In the following section, a discussion of the chapter is made, summarising the affordances found and articulated overall.

| Summary of main affordances | | |
|---|---|--|
| Teacher-Researcher viewed affordances | Student-reported affordances | Main, actual affordances diagnosed in anatomy of network as content analysis |
| Open-Publishing (as teaching and learning strategy) | Surveillance (viewing what others are doing – meant positively here, as in the ability to screen others work, or learn vicariously from others communication exchanges) | Visibility Interaction |
| Collaboration (as teaching and learning strategy) | Improved grammar Gauging appropriate level of work | Improved confidence and admission to network of peripheral participants Opportunity to situate language as performance and dynamic exhibition |
| Learner autonomy | Joining-up | Reflection |
| Inclusivity | Reflection/Reminding | Self-organising |
| Reflective | Planning ahead Connectivity to teacher / resources | Mobility Different opportunities and means to participate |
| Inquiry | Inquiry | ‘Anytime’ inquiry |
| Blending (as teaching and learning strategy) | Fun aspects; skills-based; opportunity | Orientation |

| | | |
|------------------------|---|----------------------------------|
| | to use technology | |
| Community | Checking own work | Ownership/ Personalised learning |
| Informal learning | against others, | Affective support |
| Dramaturgy – lifeworld | ensuring student doing the right thing | Motivational |

Table 14 Comparison of cited affordances by literature review, student and content analysis results

10.8.1 Affordances summary

Affordances fall into categories that may be perceived as *intuitive function actions*, reflective of social media practices (e.g. ‘checking-in’, commenting, responding to members), and *strategically designed* as purposeful, (e.g. Open Publishing, discussion threads). Blending as a strategy improved orientation and habitual (mobile and independent logging in) relationships with the network, especially where technology use is unfamiliar (traced among adults) and for students needing directions.

Blending pitches more weight of formal curricula within institutional boundaries (classrooms) to network activity. However, blending also appears to have a side-effect that draws mobile and often informal and socialised (lifeworld) activity to a network. Blending appears to help nurture ‘ownership’ of the network by participants use in formal contexts and improve mobile use.

Different perceptions abound, with LEUs viewing the space negatively or as available when needed (‘just-in-time’), while HEUs routinely visit and exploit aspects, which appear to develop (‘momentum’) in awareness with use.

Underpinning all affordances is the visibility of activity and communication. Without visible action, communities (however socialised offline) will not form cohesive relationships and the network can fragment, becoming a domain of a teacher and rendering a network more like a Virtual Learning Environment (i.e. the domain of the institution, rather than the student body). Where ambivalent students feel coerced to post, they may not recognise any values resulting from their actions. A paradoxical complex is inherent where members are resistant and coercion translates participation as an *anti-social media*. When activity is institutional, it risks becoming compliant, which “distorts the task” of engagement as personalised (1: 2008, Hadfield and Atherton), with external controlling forces (management, teachers, institutional

practice) containing participation to curriculum constraints. While *legitimate peripheral participation* (Lave and Wenger, 1991) is given allowance in the form of members surveillance (or 'lurking') and is legislated by the network's visibility as an affordance to support inclusivity, shyness and low-confidence, participation is paramount for a thriving network, so lurking becomes *illegitimate*. Confidence and participation are critical qualities of social learning and suit the HEU well, while inhibition and individualism prohibit participation. This presents challenges to educators and institutions constructing communities with disengaged students, whose perceptions of formal education, teachers and communities may be ambivalent.

There appears more intuitive use of social networks as purposeful for learning with HEUs; in the case of closing the attainment gap, which is problematic. While there is a sense of *momentum* in activity towards objects and goals with some students, to others there is an inverted sense of *fatigue* and ambivalence predicated on social-community and institutional-surveillance as factors of aversion to participation. This appears dichotomous, but affordances for 'mid-engaged' students appeared as (codes) self-management, regulating/organising, and connecting with the teacher on an 'if-and-when' basis. These affordances may appear underwhelming, but can have significance to the demographic.

The publication aspect blended to classrooms, when students were directly instructed to post publically, appeared to be effective in raising awareness of readership and, in a few cases, improving written language control. While coercion to open-publishing actions negates independent and free choice, it strengthened the (adult) network and seemingly enculturated students' to further, mobile, use. The next section explains and evaluates the impact of Edmodo-negotiated interventions made by the teacher.

10.9 Open Publishing as disorientating dilemma – re-purposing social networks for attitudinal intervention

Drawing from the affordance of visibility, the Open Publishing aspect blended to classroom use merged the five media forms Laurillard (2002) identifies as:

- Narrative (text, image)
- Interactive (responsive, such as search engines)

- Communicative (facilitate exchanges)
- Adaptive (change according to learner actions)
- Productive (allows learner to produce)

The Open Publishing intervention was reported in interviews with both HEU and LEUs as a more positive learning activity within Edmodo, improving mobile network residency (revisiting), promoting community cohesion and personal self-confidence in language capabilities. Students worked in the classroom on individual slow-writing sketches – drills based on portraits and landscapes searched for online ('narrative', 'interactive'), from which they created descriptions and short narratives ('productive'), with guided instruction scaffolding a range of literary techniques to improve writing quality. Time was allocated to produce without time-pressure applied to promote a more careful and selective approach. During the lesson, short (2-500 word) sketches are revised by students with an editing checklist ('adaptive') for students' to improve a first-attempt production (i.e. discourse markers, sentence length, punctuation range, etc.). At the lesson end, students were instructed to post their work to the network wall, along with their choice of picture. This is intended to create a 'disorientating dilemma', aimed at a transformational experience (Mezirow, 1981) reflected in the apprehension of some students to post. Mezirow describes this experience as something outside a person's control that triggers a critical reflection which can test assumptions and changes perspectives, but this has usually been framed through adults learning experiences (Roberts, 2006). The intervention is designed, theoretically, to trigger a different attitude towards the network as a space for sharing, based on the same functions as social networks, but where students are challenged to perform language use and participate openly. Some students refused to post work, others did so with apprehension, others claimed to forget passwords and left without posting, while others requested, quietly, that they may post the work as a direct message instead, which was permitted. Students were told that a homework task was to read another's work and post feedback. With the Under-19 student group, very little attempt was made at doing this, while the adults took to the task vigorously, posting feedback with specific aspects drawn from the sketches that they enjoyed and always responding with positivity. The teacher observed the exchanges before posting more specific and constructive, though supportive, feedback. This peer commenting is common to the finding by Nardi, Schiano and Gumbrecht (2004, in Leslie and Murphy

(2008) of “momentum” experienced when participants realised there was a readership base to their publication that was cited in the Research Questions chapter (4.5) as underpinning the research questions.

After the initial intervention, repeated sketch drills of writing were done in subsequent lessons with momentum seen among adult students publishing their work more readily and before being asked. It appeared in follow-up incidents that students also paid closer attention to grammar, checking spelling diligently prior to uploading their work. However, the main effect of the intervention was a trend of ‘encouragement’ posts between students outside of the lessons helping sustain social binds and goal-orientation between members.

The repurposing of the network as a publishing platform gives the educator, and possibly the student, a perception of it as a tool with more dynamic function than as a passive resource depository or communication channel. Through peer feedback among adults, this intervention appeared to improve social values as representative of participation and wider engagement, while acting as a disorientating of student responsibility. Until then, the network was mainly in the background of experience. Used in this way, students reconsider its value and potentially reconceptualise language and literacy as social instruments. Students made to undertake the re-sit may have low-literacy level for their age. However, not all do and a self-perception of low-ability exists that appears to be reinforced by the nature of compulsory re-sitting. With the teacher’s assurance that the supporting activity is a ‘sketched’ writing task and is an assessment-free approach aimed at writing control using guided instruction, student’s confidence in their work grows. Promoting the sharing of work as informal and ‘safe’ aims at uncovering the closed textbook world of literacy to an open domain and this slow sketching with much encouragement has ‘publication’ as its goal. Although an emancipation and community readership was mainly found in the adult groups, the Under-19 populations responded to the intervention by publishing openly after repeated sketch drills, if not posting peer feedback. This difference is accounted for by the social cohesion of the Phase 2 adult group, which helped enable perceptions of the network as a personally and socially assistive tool. Clearly, adults form peer communities more willingly, which facilitates ‘enhanced’ actions such as affective support and reader (per) commenting.

10.9.1 Collaborative editing as Literacy Intervention

Following this intervention, was a secondary task based on a similar method, with previous students' assignments shared to students, who worked in small groups (1-3) to improve the original grade by re-writing. The re-writing task uses an available editing framework document to scaffold literacy support, indicating varying editing tips. Students took sections of the assignments, collaborating in groups by choosing which parts to work on and re-writing to make the sample stronger, ensuring fluency between the sections, publishing to the network and peer-assessing other groups products. Again, the focus is on 'process' and improving writing from novice to mastery, based on prior knowledge of techniques, with work published to the network to situate product transparently. Accomplished in groups, this work has more anonymity to contributions, since the specific writing would not be traced to individual members, thus students took willingly to the task.

10.9.2 Summary of interventions

It was possible in interview responses and observations in the blended sessions involving interventions to identify a micro-level of 'momentum' in action. In this context, momentum is habitual: once students had published once, with degrees of hesitation and apprehension, they became accustomed to repeating the task once it is perceived as safe and a normative action of the culture of the community, reflective of mastery of process. This was perceived through initial reluctance by some members, particularly among the Under-19 group, but in repeated use, students found it normal practice and could be encouraged to post, even where no peer-feedback occurred, but particularly when the teacher gave open encouragement. A collaborative editing task realised more willingness, since the created artefacts can be anonymised. The impact of such a strategy then becomes less focused on detail and personalised feedback and more on encouraging the openness of publishing and inducing grouped work.

As a form of technology enhanced learning, this has benefits since the publication of work without technology aspect would otherwise restrict work to classroom use or result in writing being created that shared between at a static, limited level. On a larger scale, potentially regionally or nationally, Open Publishing can exceed classroom literacy practice by engaging users to situated literacy, to content creation, by inculcating a sense of authorship and readership, confidence and self-awareness, which may result in heightened attention to grammar and writing strategies.

Chapter 11 Theoretical Sampling

11.0 Organisation of the chapter

This section turns to the construction of a conceptual model of engagement to the network, made by Theoretical Sampling, which Corbin and Strauss explain “...is based on concepts that are found to repeatedly be present (or, in some situations noticeably absent...and to act as conditions that give variation to a major category” (1998: 202).

In constructing a theory, a more conceptual and potentially more abstracting process is taken sampling key parts. In a comparison of resulting codes and categories from the literature review of affordances with the content analysis, certain actions and behaviours that were repeatedly made by low-engagement and high-engagement students were segmented and highlighted (below). HEUs actions were ordered as macro-themes of the sampling. An extraction process of key themes was made based on the profiles between low-engagement use and high-engagement use, consolidating these with affective disclosures, constituents of socialisation and interviewee responses: a scale of use emerges, which plots a representation of ‘engagement or participation’ in terms of types of posts and communications and actions by students in the network. The table below shows activities as exclusive to the variant type of student (HEU and LEU), which would then be plotted as higher engagement ‘deliberate’ use against unconscious (i.e. unaware or non-exploitation of network to support progress) as lower engagement use.

| Types of High-engaged ‘enhanced engagement activities/posts’ | Low-engaged posts |
|--|---|
| <p>Offers affective support (empathy, encouragement, appreciation) to peers</p> <p>Seeks own feedback and offers peer-feedback</p> <p>Shares found or own resources</p> <p>Socialisation</p> | <p>Notification of absence/lateness</p> <p>Abstract post reflective of disengagement or disruption to norms (non-socialisation)</p> |

Table 15 Characterisation of ‘enhanced engagement’

As this section aims to show the development of a theory, it's necessary to be reflexive on initial assumptions of the use of a social network to support the learning experience. In the first instance – at the outset of the study – the impression of the network (by the researcher) may be represented by the very simple figure below, with the agent (student acting upon the space), supported by a teacher and group, inside the space in a straightforward linear, transcending manner.

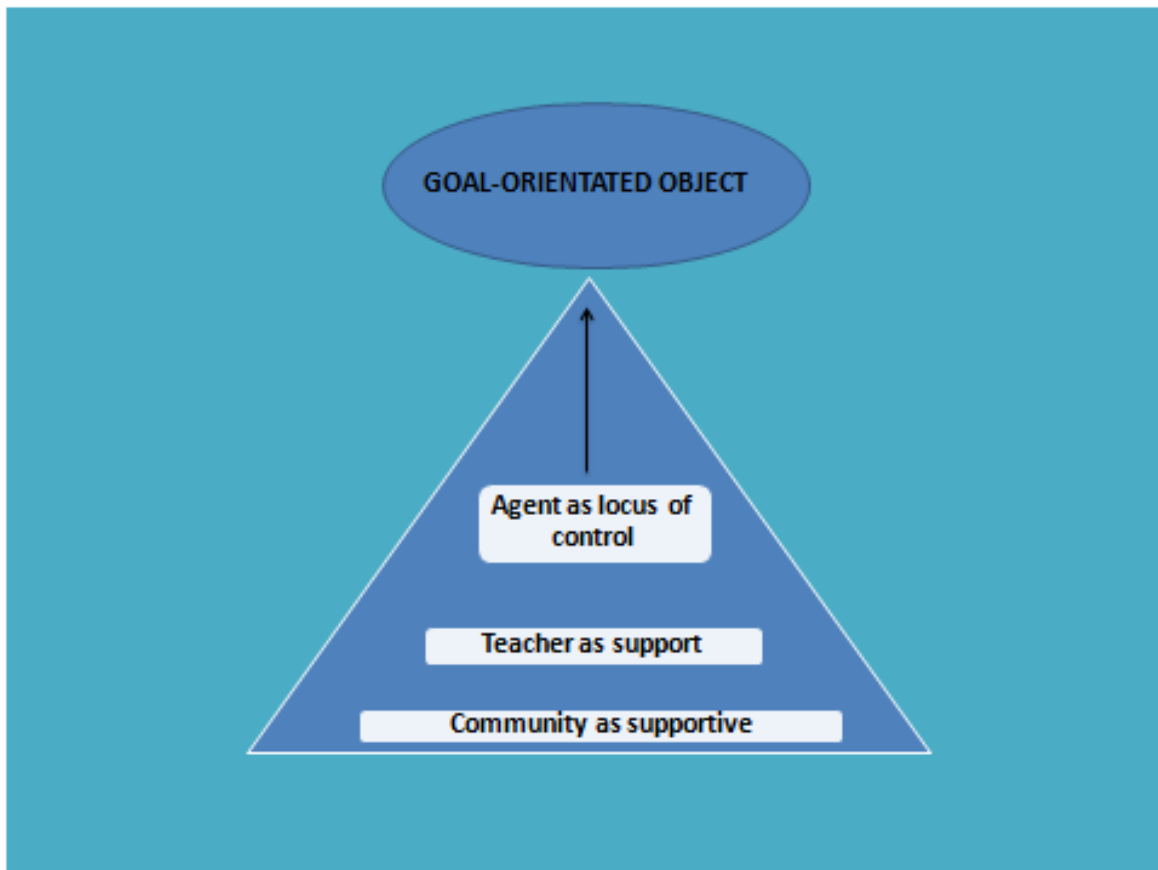


Figure 18 Ordinary-initial assumptive representation of experience of learners in social networks

This, taken as a norm of use, is contrasted to the map that arose following the coding and analysis stages, shown below of actual habits of use.

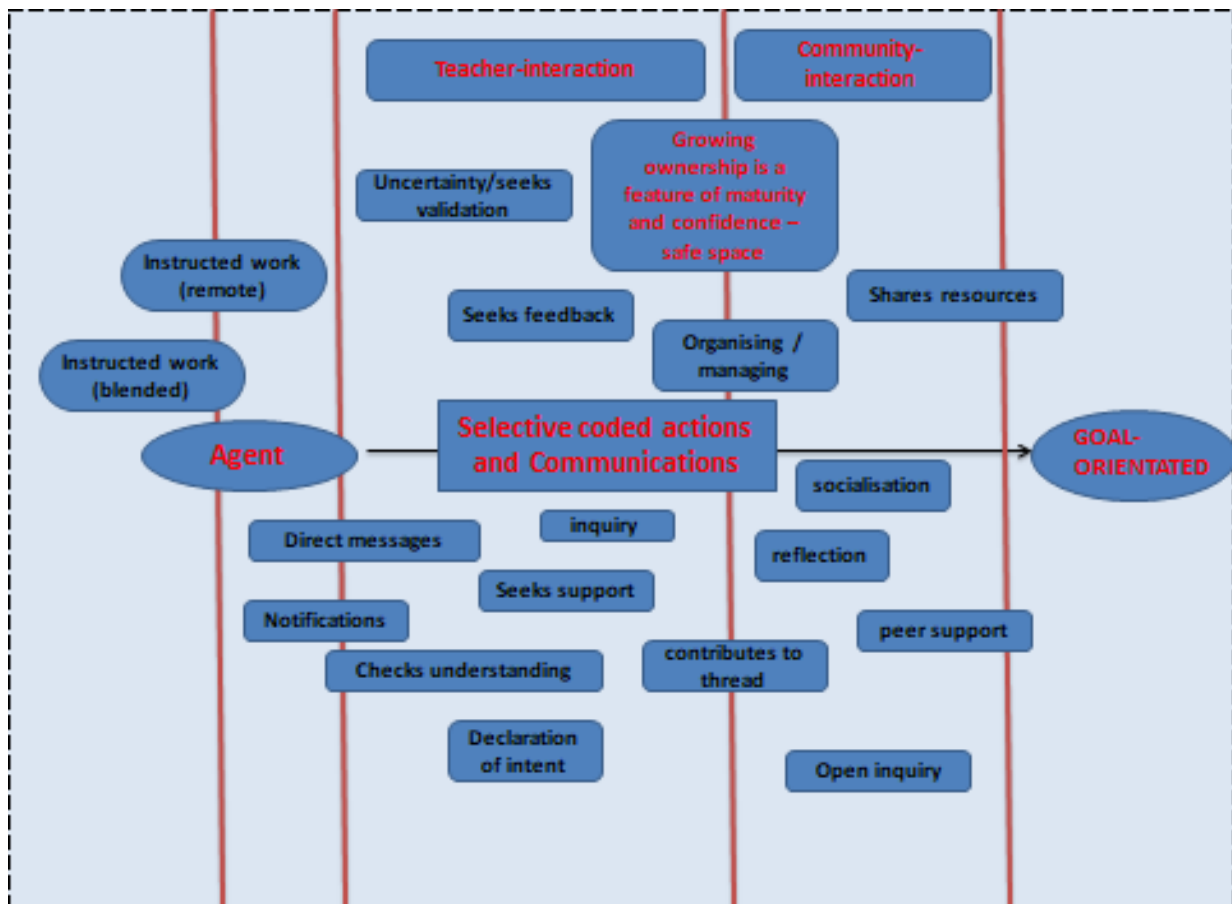


Figure 19 Actual representation of macro-level themes

The dashed-outline is a thin definition – broken up to represent less distinction in overlap between the two spaces. The vertical lines segregate domains of activity between teacher and community: to the left are intrinsic actions – reflecting students’ posts made to (mainly) serve their own needs and tentative use (i.e. direct messages or checking understanding), typically supported by the teacher, while to the right are actions that are more participatory or contributory posts to the community. These are positioned to the right, since they reflect increased confidence by the agent in their use of the network and in personalised and socialised actions towards a goal as outcome. The red lines represent approximate personal thresholds of engagement (explained in detail in 11.6).

Finally, a map was plotted to show the momentum of use as an ‘*anatomy of the social network*’ from this study. This includes actions or communications made by the teacher (above the central horizontal line) within the site, with responses plotted below it from left (as ‘less effective’) to right (as ‘more effective’) in enhancing engagement, which was determined by the responses that were generated by the teacher’s

particular activity or intervention in the space. Responses to the actions are shown below the central horizontal line, either declared in interviews or shown from analysis.

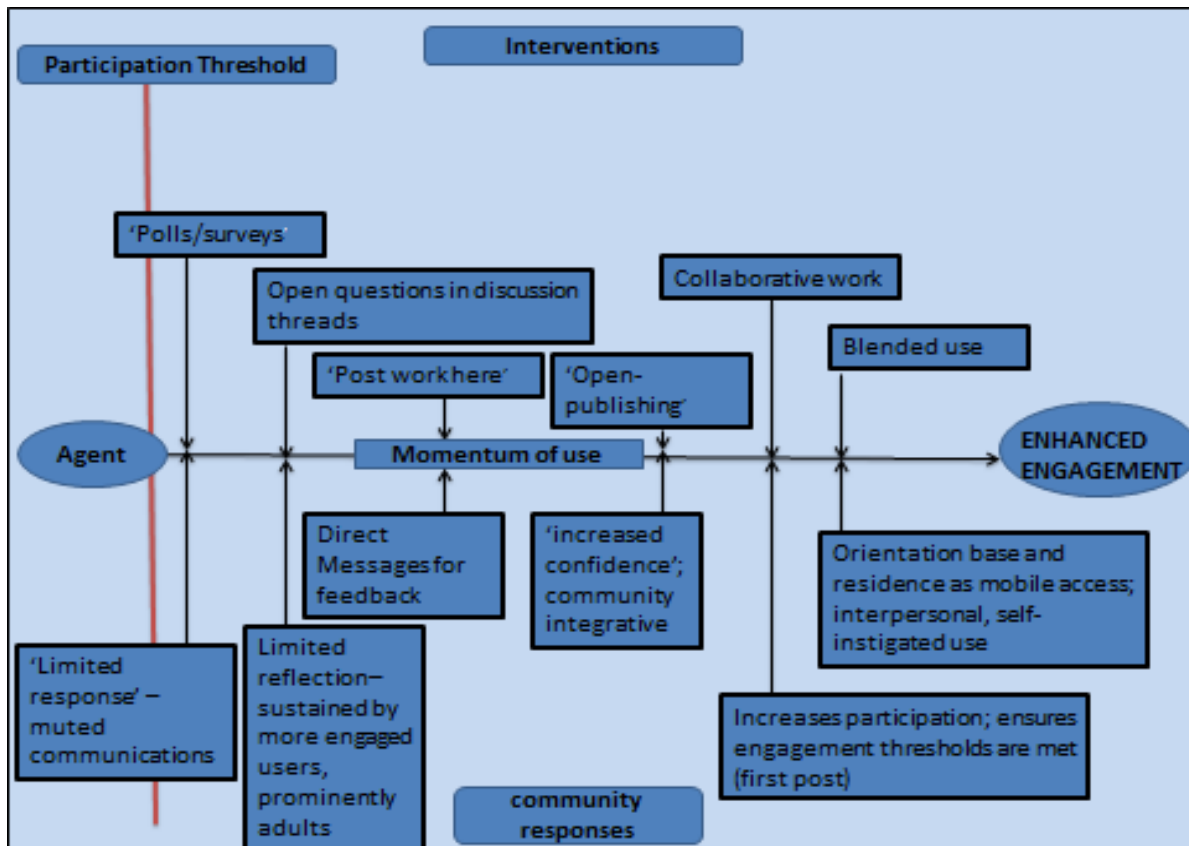


Figure 20 Map of types of activity negotiated by teacher for using Edmodo with response rates by students

In the figure shown above, separate interventions by the teacher are represented in terms of their response by students. Responses were gauged in terms of actions (posts) within the network and the attitudinal responses to questions regarding the use of these interventions in interviews and observations. The lower domain shows responses by students to the upper domain (intervention activities) showing how these inculcate community participation from left, reflecting lessened participation to right, reflecting higher instances and more engaged activity

Action and promoted interaction stimulate further self-determined action with the most effective intervention strategy as 'Blending' (integrating uses of the network into classroom lessons) appearing to be more effective in orchestrating mobile use as residence to the network, promoting requisite digital literacy skills accumulated from supported face-to-face practice. At the lower-end, despite their potential for reinforcement and further personalisation, the use of polls and quizzes went unnoticed

when students reflected on how and with what functions the network were used. Discussion threads, started by a teacher, are shown as having a fairly low response rate; as shown in analysis, those threads had some promise at the start of the year in each Phase and with both age groups, but gradually dwindled in terms of responses. They were best utilised as informal discussions, loosely related to curricula, than attempts at cognitive discourse towards knowledge construction.

11.1 Momentum Network Theory summarised

In general, the theory agrees with Lave and Wenger that a cohesive community will bind itself to learning aims and goals, with socialisation a core element to purposeful engagement. Momentum, being time-sustained engagement, can occur through use where interventions support engagement actions plotted to the network. This may be individual, as in the case of HEU Under-19 students, but at an enhanced level, momentum is the community drawing members' activities towards goal-orientated objects, more apparent among adults in Phase Two than Phase One, due probably to the blended use. This is reflected by example posts shown in the earlier Selective Codes Discussion, with a focus on 'Socialisation' showing how students *repurposed* the network for peer-support, creating re-integration of a student at risk of dropping out of the course, as well as the mutual support students showed each other in work posted openly (both instances from Phase Two, Adult group). That this momentum is exclusive to adult HEU is debatable; adults were more visible in their actions expressed in posts, suggesting higher motivational acceptance of (and residence to) the network as purposive. Repeat-Repeat students across the aged population groups showed similar momentum in uses when revisiting the network and making proactive posts, reflecting Readiness and Motivation (Knowles, 1970).

Adversely, resistance and ambivalence can prevail in parallel. This was apparent in the behaviours exhibited with Under-19 groups where a fragmented network occurred as posts were mainly made by the teacher; activity and communication in the online space stagnated and divergence arose. With motivations among LEUs potentially impacted negatively by the lack of interaction by peers within the network, an aura of fatigue arises as the negation of use endures. This can be overcome, even after it starts, by Blending classroom learning activity to the network, though in the case of

this in Phase Two Under-19 group, it appeared that Blending resulted in a limited increment of engagement for most students and a sustained engagement with HEU or 'Repeat-Repeat' students, suggesting a widening gap of attainment. While these appear as binary endgames of behaviours and uses, for some LEU users, an affordance arose from Blending activities, as a small number of Under-19 LEUs began to post work by direct message to the teacher for feedback. This allowed some discretion in approaches to study, reflective of lesser increments of momentum (as individual, rather than community-weighted actions). Momentum particularly developed in frequency of proactive posts as assessments approached and, combined with Blended uses in the classroom, suggests an adaptation and familiarity with affordances of the network across time that enables goals to be perceived and actualised.

The hypothesis that arises is that *momentum* of activity enables engagement that can assist with an assimilation of students' to goals. Momentum was beneficial to HEUs who perceive the network as student-centred and are proactive in use. It was difficult to see that the network supported a momentum of engagement among LEUs, whose perceptions were of the network as enabling adoption of others' ideas, a repository of resources and access to the teacher, or – at worst – a field of surveillance to be distrusted.

The theoretical concept of Momentum, as constructed from this analysis, is discussed in 11.9

11.2 Edmodo as a mirror to classroom behaviour

Problems surround the implementation of technology in closing an attainment gap, because of the reticence and ambivalence of some members to interact. HEUs may become 'models' for good practice within communities as other replicate their lead, but there is limited demonstration of this in this study. Networks may support learners who appear disengaged, but who lurk, but it is hard to regard lurking as affordance, since LEUs can always make claims that they did not receive notifications or announcements. This can be problematic if course organisation is attempted through online space, or if expectations of participation and attainment are set at to an HEU standard. These issues replicate the multifarious problems of classroom behaviour in

aiming to steer students' towards objectives and work at a specific pace. The similarities between the contexts are extensive in terms of behaviours, actions and attitudes, which were often reconstituted from offline to online.

The content analysis and findings from the interviews have shown how HEUs developed better awareness of functional and technical uses of the social network as supportive of their own learning, pointing to a degree of self-efficacy. Furthermore, some took advantage of functions and features to enhance the group. HEUs online were mainly highly-engaged students in the classroom and LEU mainly low-engaged in the classroom, though instances of non-mirroring included the use of the network to make open declarations of affective needs, which didn't normally occur in classrooms.

Sound theoretical schemes build in variation (Corbin and Strauss, 1998) which is to take into account anomalies that do not fit with patterns. This has been taken into account by focusing on exceptional users, including students who would be deemed low-engagement in terms of network activity, but who worked in self-maintained isolation and avoided interaction with the community. There were several cases of this type of student, mainly Adults or Repeat-Repeat students, such as Brionny (discussed in 9.2.8 (Goal-Orientated) who had a high capability to work alone, using the network regularly, but always and only in interaction with the teacher.

In a Phase One interview with one such Adult student, this self-sufficiency in students' behaviour was attributed to both preferred methods of learning, in a rigid approach, and ambivalence to others:

Joan: *I have a very busy life and I guess Im a little old fashioned when it comes to studying... I like to study alone and Im always pressed for time and did not really want to get involved with debates or reading other peoples work, which I know sounds really selfish of me.*

This student did, however, perceive values acutely to use of Edmodo, including - the codes – '*seeking guidance, a social learning environment, seeking explanations when confused (from teacher and students), working at own pace, access to materials, and sharing viewpoints*'. A similar student posted his own resources to support peers at the encouragement of the teacher, but otherwise didn't participate with community, just as they didn't in the classroom, participating only with the teacher.

The integration of 'mid-engagement users', between the binary parameters of the Engagement scale (Fatigue – Enhanced) made less altruistic actions (community-participative), but demonstrated 'intent' through associated affective responses (request for clarification, organising, disclosure of low confidence). To be taken from this is that non-use is not solely attributable to low confidence, but 'un-social' attitudes.

11.3 Attitudinal change

11.3.1. Repeat Students

Exceptions to this mirroring of behaviours between the classroom and the network were Repeat-Repeat students, LEUs in Phase One with low-confidence and participation. Renewed confidence in Phase Two saw increased activity occur in each case of Repeating student. The reasons for this are probably multiple:

- Increased familiarity with the course curriculum, with the teacher and teaching methods
- Increased familiarity with the social network as situated *habitus* of normative activity towards objectives
- Increased motivation to succeed on the course
- Perception of network use as facilitating chance of success.

Among Repeating students, an unofficial 'mentor' role was recognised, in the second repeating phase, as students lead by example: posting more prolifically than before and more than peers, directing communications to the group rather than just to the teacher, sharing their work, posting responses, offering insight into informal learning, and generally taking active leadership and ownership of the activity in the space and their own learning. This was reflected by more participatory classroom actions and behaviours: answering questions readily and asking questions openly, highlighting the sense of resurgent agency. The network gave an opportunity in which to perform as a community expert and demonstrate aspects of renewed confidence. This is significant in the momentum gains from peripheral to core community member (Holmes and Meyerhoff, 1999).

11.3.2 Increments in confidence

There were also suggestions of increased confidence in students' actions and communications in their first re-sit. From interviews and classroom observations

indicators of 'self-presence' among some students were noted, reflective of changes in attitude or identity fostered by situating practice in networks, for example an Under-19 LEU who posted his first work, accompanied it with a disclaiming statement in the classroom: *"Don't start getting at me about the words and that"* (referring to language used openly in the network to present his ideas), reflecting ambivalence about openness, while an adult HEU of the site approached the teacher-researcher with discretion after posting, stating

Martin: (in horror) *"I spelt 'speech' wrong on that post"*

before checking if the post could be edited (which, unfortunately, it cannot be). Such insightful examples to the *lifeworld* of student inhibition reveal the tensions of open networks for users: educators should allay worries about spelling to overcome apprehension of posting. The self-awareness about individual language ability did not diminish further use by Martin, although it did with the Under-19 LEU. This attitude change suggests an implicit link between Open Publishing and performance of dynamic language use with confidence development aligned to intrinsic motivation, if only in the case of HEUs, as discussed by Joe in interviews:

Joe: *"even if you did post something that weren't the best or... you know, you... I started getting a bit less self-conscious, you know. Like, at first you're like, "Oh, I want to make sure this is spot-on. We're going to post this on Edmodo." But after a while, you're like... you could write something pretty quick and just put it up, you know, if you just had a quick minute. I guess we started getting less self-conscious. The only thing I was a bit conscious of, if we were ever on Facebook, I write, like, text language; if it went up on there I'd never want to write text language just in case you read it. So I always started to use my full-stops and commas and write proper English on there."*

I: *Has it affected you... the way you write on Facebook?*

Joe: *Yes, it has.*

The proposal is that the interviewee, Joe, in using the network has gradually become accustomed to self-reflect, overcoming a threshold of self-actualisation. Characteristic of this are a growth in confidence and (self-correcting) language ability. Accruelement in confidence may be attributable to the intervention of Open Publishing of work, supported by 'residence' of the network which Joe 'owns' through socialisation posts.

The LEU who was uncomfortably self-conscious in the visible space of the social network (*“Don’t start getting at me about the words and that”*), never followed up his initial post of work instructed by the teacher and dropped from the course. Potentially such openness facilitated exclusion, though unfortunately factors for disengagement are difficult to establish once the student drops-out. The openness action didn’t have the positive careful reaction that the two adult HEUs experienced. Joe had used the network with less self-consciousness from the start, reflecting an innate confidence that the LEU didn’t hold.

Other examples of attitude change were detected with the interviews with LEU; though not at such a tangible level as with Joe, the attitude towards Edmodo was reported as transforming (following Blending activities) from one of a suspicion of the network, to one as supportive, while Tony (Repeating in Phase One and Two) expressed a new focus on the network to enable success.

11.3.3 Purposive membership as Base

In order to exploit benefits of social networked learning, nurturing membership is a paramount threshold stage, requiring not just a subscription to the service (signing-up, creating a profile), but a submission of engagement actions to objectives. Affinity spaces in participatory cultures (Jenkins, 2010) use social media as access points, requiring names and passwords to converge identity with a community of practice: by entering personal details, individuals are contracted to an initial threshold of that community’s cultures. This was apparent with LEU and disengaged students in the research project, who routinely forgot passwords and usernames and, in classroom lessons, often requested to e-mail work, rather than submit through the network, even though some students stated that they didn’t have personal email addresses and used family members’ email services. This is symbolic of a refusal to co-opt as negation of the community of practice, an indicator of free-will, and potentially disengagement. Arguably, for this population, membership extends beyond the re-sit course, i.e. as potential NEET from formal educational or social participation, which digital identity has come to represent.

Situated Engagement to networks is a threshold, just as when students’ enter a college or classroom. It becomes dynamic to affordances when purposive action arises. Initial situating is a meaningful gesture: the action of ‘logging on’ is a symbolic

acquiescence to student identity, to community, discourses of learning and to goals as objectives. Logging-on is a locative residence of orientating identity (as membership) to the network – the “base” that HEU Jane described – and as inquisitive as opening a book. In classroom observations of students accessing instructions and resources, the researcher noted that students can access ‘posts’ as embedded documents through email notifications, meaning that they do not actually have to visit the network (where more activity may be taking place that students haven’t received notification of). Yet still, the students followed this by directly logging in to the network (within the classroom, where activity is blended) and entered the site formally, as if consciously taking their place, rather than merely opening resources posted there. Exploring this behaviour, responses were given that they were “looking around” as the space may have further activity, a ‘checking-in’ as commencement to self-regulating studentship, which orientates identity with future activity. ‘Logging-in’ is horizon-scanning, but there are ‘members’ who didn’t enter the threshold. This is challenging to formal educational institutions, so understanding varying thresholds of engagement to socially situated learning cultures may support initiation within these domains. As phenomenological instances of *lifeworld*, the thresholds outlined in the next section are conceptual interpretations of students’ experiences, drawn from observations, content analysis, and interviews. They indicate a fine-grained readiness and engagement of different participation stages. Practical recommendations follow each stage for educators.

11.3.4 Summary

Student-recognised affordances, such as using the network as a base of orientation by mobility, appear to improve engagement with the network and towards community-support, but this is mainly limited to the HEU, and especially adults. Blending helps to support mobile-access and improve negotiation of use and can be seen as facilitating Momentum towards engagement. High network use appears to improve confidence and attitudes towards the course, and finding this in Repeat-Repeat students shows an increment towards higher use and a changed attitude to the network as facilitating engagement, indicating enculturation to technological forms as serving students purposefully. A closer account of the gradients of apprehension towards engagement by LEU towards increased use is presented in 11.6 as a conceptual set of threshold stages to online engagement.

11.3.5 Thresholds of Engagement in Situated Mobility

Situated Mobility is simultaneously static residence within the network and mobile access. Despite the potential of supportive networks and interactive communities as enabling autonomy and self-determination, this has considerable tension in this demographic.

It has already been discussed how there are varying degrees of meaningful participation with the network (comprising of individual activity, and interaction with content, the teacher and the community), and categories of learners grouped as LEUs and HEUs and with *Social Media Fatigue* or *Enhanced Engagement* the realisation of activity in each binary. For the most part, the tendency of students in this research study was to replicate their offline classroom actions (behaviours, intrinsic motivation, goal-orientated objects, and will to participate) in the online network. For example, the LEUs in the content analysis tended to be low achievers, participants and contributors in the main part in the classroom context. There were anomalies, but highly active and motivated users contributed more purposefully to the network. It has also been seen that *Repeating students* across the two years would post and participate more online, if not in the classroom, which is explained by Under-19 year old Repeating student interviewee, Tony as mastery supported by the network as joining-up sporadic sessions:

Tony: *if you've done some work in the lesson, you go home and you do work on that, and then if you post that or, you know, publish it onto Edmodo, you've got a chance to know what's good about it and what needs improving so that you're ready for the next lesson.*

However, it has been identified that there were also some indicators of identity change, characterised by changes in attitude and behaviour manifest as performed actions online (published literacy, increased amount of posts, request for feedback and resources) among a small group of students. Repeating students, taking the course in Phase One and again in Phase Two, were mostly adaptable in their behaviour, moving from LEU, or lurking non-participatory subjects, to students with a high sense for agency as self-efficacy, exemplified by 'enhanced engagement' activities in the network. It is these episodic pre-liminal changes in behaviour and

attitude that this model aims to highlight as 'Thresholds of Online Engagement', presented in this section. This is introduced by visiting a theory it builds from next.

11.4 Liminality, disorientation and the re-sit as troublesome knowledge

The notion of thresholds is taken from the conceptual framework of Thresholds of Knowledge (Meyer and Land, 2003), which sought to identify internally transformative experiences in the epistemic position of learner through “the entrance into the transformational state of liminality” (Meyer and Land, 8: 2005). States of experiencing new knowledge can be problematic, (but framed as progressive, since one cannot easily unlearn something new) – experiences framed as epistemological or transformed shifts in attitude and perception. This appears to be mainly located by its authors in one educational strand (i.e. Higher Education). The authors claim that the theory is generative suggests transferability to other contexts.

The original paper on Threshold Concepts couples the concept with 'Troublesome Knowledge', showing how every discipline “has knowledge that is 'alien', or counter-intuitive or even intellectually absurd at face value” (2: 2003) – in aspects, rather than holistically. Difficult aspects of knowledge on a curriculum's units are not the only obstacle for re-sit students. Literacy challenges such as dyslexia (as common among the re-sit population), previous negative academic experiences, expectations, compulsory curricula and resulting feelings of being 'contained' by compliance (Hadfield and Atherton, 2008) are all commonly noted behaviours observed in this study that may contribute to re-sit students' troublesome experiences. In this study's temporal boundaries, students' experience development and readiness at different points of the year, some very late in the programme of study, and some (highly resistant to curriculum and qualification objectives) not at all, leading them to repeat again. Clearly, perceiving transformations in habitus or disposition is a challenging notion. This conceptual model is based on empirical data from the methods as far as possible. While statements in interviews, observed change or accretion in language use and behaviours of use of a network are crude methods to track and detect epistemological transformation or attitudinal variance, they are scaled as hypothetical in as far as the original papers were conceptual and anecdotal. The purpose is to

propose that alongside momentum and community, individual orientation to online learning environments may impact identity, in the sense of tools as affecting users in the Vygotskian sense, described in 4.1 (Activity Theory). Viewed as ‘thresholds of willpower’ the concept of *troublesome experience* fits with understanding engagement and lifeworld in phenomenological terms for the demographic, but the notion needs breaking into substantive parts.

No temporal boundaries define the varying stages of Threshold Concepts by Meyer and Land. Where individuals do not progress through thresholds, Meyer and Land report ‘being stuck’ as an epistemological obstacle preventing transformed perspectives occurring, reflective of *normal* disposition in the demographic of this study. As recommendation, the authors cite the use of technologies redesigning activities, scaffolding activity, providing support materials, recursiveness (repeating patterns), mentoring, peer collaboration, or creating a ‘holding environment’ (Winnicott, 1971 in Meyer and Land, 2005) in which necessary development can occur, which match codes drawn from interviews as affordances, respectively

| Affordance codes from interviews | Winnicott recommendations for ‘stuck place’ experiences |
|---|--|
| Alternative access | Support materials / Re-designed activities |
| Bite-sized materials | Scaffolding |
| Provision of resources for reflection | Scaffolding / Holding-environment / Recursiveness |
| Joining-up | Recursiveness |
| Community support | Peer-collaboration / Mentoring |
| Network as ‘base’ | Holding-environment |

Table 16 Matching affordances with recommendations from Winnicott (1971)

FE itself is a transition threshold between school and HE, apprenticeship or the workplace, where learners should become challenged by new ways of learning suited to changing environments and contexts. The Under-19 students represented as LEU here complain that the qualification is a school one and commonly report that grade D

(regarded institutionally as failure) is individually sufficient. For such students, disorientation and resistance to transformative epistemological perceptions ('stuck places') is a fixed habitus, which Meyer and Land report as ontological. Meyer and Land's (2003) criteria for Threshold Concepts are categorised as:

Transformative: Learners gain fundamentally different views of a discipline and begin their journeys as professionals in that discipline.

Irreversible: Certain concepts can be difficult to unlearn, or a change in perspective is unlikely to be forgotten

Integrative: Exposes the previously hidden interrelatedness of something

Bounded: Frontiers between subjects

Troublesome: Knowledge may seem counter-intuitive or even alien

Reconstitutive: Mental models are reconfigured and new schema are created

Liminality: The learner may feel disoriented or even a sense of loss that his/her models have shifted, along with a sense of exhilaration.

11.5 Ontology Thresholds

The online threshold framework devised here is less focused on Troublesome Knowledge as specific epistemological reference links with the curriculum and more with the ontological experiences of 'Agency', as it relates to engagement and momentum. A similar interpretation of progression may be applied to the individual perception-forming proposal that Meyer and Land's interpret where new knowledge is integrated. Aspects of 'online ontology' arise from affective and intrapersonal themes: reluctance, suspicion, newly found confidence, empathy, peer support, self-regulation, etc. Thus, it may plausibly be argued that such stages of ontological transformation manoeuvre students' through thresholds of engagement as situated online; where wary individuals (such as students who are reluctant and even resentful at re-sitting a course) are duty-bound to participate in openly visible arenas and social communities of practice, there may inevitably be ambivalence to be co-opted to thresholds.

Students may further remain disaffected by efforts of coercion to engage, and exercise negation to assimilate, as observed in classroom comments: *"I'm not using that"*, and *"I'll make an account, but I won't be using it."* Drawn further on these disclosures, students' responses were silence: divergence as absolute. The teacher explained how it can be helpful to working methods, but the students in question had already taken a position and wouldn't submit work throughout the course. The link between resistance to taking the course as compulsory and acts of negation to entering a threshold of participation is striking. Others could be coerced to negotiate the network gradually, while mid-engagement Under-19 students' illuminated the habitus of the LEU:

Drake: *"He (name) said it's like they've already failed in school, so why do it again? Why come to classes if you can't get a C. If they've got to do work on Edmodo that just makes it stick. Because they feel like failures so it's all there, then... 'on the wall' for everyone to see. I reckon they think the college has 'got them' if they try."*

In social circumstances, peripheral participation as lurking or as resistance has been considered legitimate, but in the context of those in this study peripheral lurking is cautionary. Where this study saw gradual increments to higher engagement, the analytical procedures enabled a conceptual extraction of incidence of *lifeworld* experience. The illustrated threshold stages have recommendations for teachers' promoting purposeful actions towards engagement to overcome divergence. It is not intended to appear exclusive, or a direction of travel that assures that negotiating the corresponding actions will result in 'enhanced engagement', since, in keeping with the overall paradigm of this study, it is conceived that behaviours and human reality responds to multiple circumstances, so is not consistently predictable.

There are parallels between Meyer and Land's categories as epistemic and ontological experiences as intersubjective to student lifeworld, particularly where proximities are suggested. Their notion of 'Bounded', for instance, as a personal constraint to dispositions open to transition, may be linked in this study to tensions of 'surveillance' reported in student interviews as reluctance to enter into participation. Likewise, Meyer and Land's definition of 'Integrative' is not dissimilar to the embodiment to an 'other' (teacher, community) as supporting individuals' online experiences.

It might be regarded as disingenuous to attempt to systematically reinterpret the categories and their requisite properties into corresponding criteria for ontological experiences of becoming situated to general online community networks. Instead, proposed below are factors that arose as aspects of student experiences in this study, ordered and interpreted as *states of becoming*. Thus, any transferability of such a model as that described below may not be adaptable to different levels, as here it reflects the re-sit students in this study, many of whom struggle with low-confidence and low aspirations, attributable to negative educational histories. This may compromise social involvement, positioning them as peripheral to formal education inclusion. Such a statement may appear derogatory, but these experiences appear common to the researcher as affecting the student population and could be taken for partial explanation of the resistance to social forms of learning and ambivalence to the course and teacher. Ontology, as the section headlines, comprises moments of change. Thresholds may be influenced by age group demographics: in this study, some participants may be classed as emergent adults (16 – 19 years old) (Subrahmanyam *et al*, 2008), an age as threshold itself to areas of social and economic maturity. The network is presented as metaphor for socialisation, or resistance to such. Thresholds are boundaries to and opportunities for becoming.

Where Meyer and Land have identified Thresholds as stages of the learning moment for students, it should be recalled that teachers' manoeuvre through thresholds of knowledge in how to better construct learning environments and how to better communicate and accommodate those to outcomes. At each stage of the following, recommendations for practice follow that are informed by the empirical data, but also drawn from the researcher's experiences and reflexive memos about how such stages may be better scaffolded in future practice. These aim to pre-empt student divergence from networks and communities, fitting closer to a disengaged demographic than to other levels. While the sense of ambivalence portrayed here may specifically arise from the GCSE re-sit culture, it is possible that it fits with students' in instrumentalist contexts – particularly adults in FE – where low-literacy and previous educational experiences may represent barriers.

11.6 Threshold of Situated Mobility: Ontological embodiment of online identity

11.6.1 Apprehension Threshold: Visible Incursions

Characterised by: affective notions of suspicion; a resistance to openness of personal individuality represented by open source software and social networks

Activity in networks has a troublesome paradox to community: highly confident members take centre stage, potentially crowding-out peripheral ones, as understood by Duckworth and Ade-Ojo (2016), who show how entrenched paradigms of education reinforce notions of power. However, in the present study, even highly-confident students (in the classroom) showed uncertainty in their first posts, characterised by irrelevant or antisocial remarks accompanying posted classroom work in one Under-19 group. Where such posts are glib, they will have negative modelling consequences. Where students avoid making declarative disclosures openly (particularly if an answer is invited by an instructor) concerns risk becoming manifest through negative social surveillance as '*reluctance to participate*' and attitudinal pressures of '*appearing keen*' become ambient. Anti-social posts diverge from academic community objects, as contrary to Lave and Wenger's 'mutual engagement' or 'joint endeavour' and were particularly pronounced among 16 – 19 male members. Codes signifying this were shown by the sense of 'suspicion' or disenchantment with the network as helpful to the individual. While this casts the members' responsibility in negative terms, even more positive and latterly HEUs exhibited initial apprehension and slight disdain at the network. Thus, first posts as actions are a primary threshold, complicated by individual and social attitudinal positioning, requiring guided instruction.

Recommendations: There may be value in inviting 'artificial' personalisation of the network using an alternative avatar or pseudonym in initial profile construction (McBride, 2009). Clearly, there are arguments regarding validity of identity, but observations of this in the classroom showed students manipulating 'fake' options (through iconic animated avatars), which created initial attraction to the site, with more authentic profiles (shown by changing profile images) arising later.

It's important to encourage an immediate imprint on to the space of a network. In cases where Under-19 students did not make initial contact with the network,

attitudinal dispositions and expressions in observations were that the network held no obvious value to the student. Leaving traces from a first session as informal may inculcate ownership: ice breakers through personalisation introductions, such as in students representing their outside interests through objects as multimodal (sourced photos, videos or creative work). Extensive text or excessive extraneous information is unadvised as potentially divergent to sustained interaction.

11.6.2 Navigation Threshold: Discovery

Characterised by: network exploration, membership negotiation and domain exploitation

After membership is established, expectations and opportunities are framed as members log-on to see what the network has of value to them, a self-reflexivity to identity. Disengaged users may start considering hiding spaces or exit strategies as regarding the space with cynicism, symbolised by a lack of personalisation detail to the space (e.g. adding a photograph or any other details), which can be overcome by recommendations made above. Alignment between conscientious (motivated, committed to objects) users begins with a negotiation of the space as assistive and socially situated to goal-orientated behaviours and affiliation with the space as residence of actions towards objects needs to be co-curated to avoid dichotomous patterns of use that have been found here with LEUs and HEUs. Students may look for basic personal gain from use, such as ways to notify the teacher of absence through the site or, more proactively, request that resources be made available. To this more positive trace, a sense of momentum to objects begins as an understanding of functions, features and purpose is set.

Recommendations

If the above description holds, then this stage - building from the previous one - can disrupt gaps between the engaged/disengaged. Principally, two steps are important at this early stage:

1. Instructors make a grand tour of a network within lesson time to support students explorations and investiture in affordances as realised by students themselves, and

2. Instructors democratically establish normative actions, or expectations of use, such as how often to log-on, response times from an instructor, acceptable language. These will help to draw boundaries of acceptable behaviour, which may be compromising when the network is to be regarded as shared and social, but as necessary.

These stages, framed as co-construction of the ecology and its culture may improve ownership, participation and student voice.

11.6.3 Habitus Threshold: Situated Embodiment

Characterised by: redefined personal membership and embodiment to online space, affective experiences such as (autonomous) disorientation and potentially frustration

Students' actions become more goal-orientated, less directed by the teacher and characterised by need-to-know actions: inquiry, direction, clarification-seeking, etc. Students start to attend the network by osmosis, becoming mobile orientated, represented by more routine logging in as purposive to membership surveillance. At a stage beyond personal use thresholds, community awareness may emerge, as individuals seek intersubjectivity in posts from others, who may be confused or disorientated about learning objects. In this threshold, members' gravitation to social networks becomes habitus of community embodiment, through a mediation of group narrative as supportive of personal identity (Zhao, Grasmuck, and Martin, 2008), such as checking others learning approaches, comparing self-status to others). The institutional spectre of the network (teacher presence) may begin to recede, as members adapt to incremental ownership.

Recommendations

Due to checking-in, educators must be careful of overwhelming students, but a complete absence of any activity may deject check-ins, so push-notifications may be based on bite-sized reflective questions to join-up sessions, posting reminders and targets for wider goals.

Students may still be reticent to engage with community, so moderating interpersonal posts and interjecting with clarification or correction is important. As this is a threshold based upon growing agency and inter-dependence between community members, there may be some currency in leaving confident students to develop an authentic sense of self-determination by resisting the response rate to any and all enquiries. Classroom interventions such as collaborative work will bind offline relationships. Open Publishing may support increased mobile access from the classroom and give students a greater sense of personal capital from use, though if members initially don't comment or posts on others work, the Open Publishing activity should be repeated.

11.6.4 Efficacy Threshold: Self-actualisation

Characterised by: affective statements and declarative statements of intent to act

Linked to Open Publishing and Editing as cited above, blending and collaboration as designed agency actions are made purposive, in order to structure developed self-efficacious qualities to control and operate objects. This was indicated by lifeworld published disclosures as representative of self-identity where members reported self-correcting their grammar and language, as members perceive actions translated as outcomes. Mobile-orientated residence enables individual agency and self-disclosed emotive statements represent increased affinity and confidence in uses as identity becomes situated to attitude-change as higher engagement. Where communities are empathetic and supportive, personal, individual affective statements become norms and bind community's values of peer-support. This threshold would appear highly contingent on the emergence of a strong offline community (hence the need for blending as integrating identities and behaviours). Repeating adult student Jane posted statements of support to community members well before others in the group in Phase Two. She cited the lack of cohesion, posts and misuse of the network as a frustration earlier in the course, reflecting readiness on her behalf and highlighting tensions where others did not yet regard the network as a community tool.

Recommendations: Momentum becomes enculturated through time, frequency and socialisation, but it is important that educators remain vigilant to low-level participants. Differentiation is important, with stretch and challenge questions and sustained

dialogue in discussion threads supporting HEUs, alongside directions for use, such as supporting others personally through surveillance thresholds. Encouraging direct messages for support or clarification to students who remain unsure of what to do will help enculturate peripheral members, but general enquiries, particularly basic ones, could be transferred through the teacher's voice to the group, so the locus of control becomes more situated in community interaction. Equally, encouraging peripheral learners or mid-engaged users presence to post openly encourages higher degrees of interaction from the group in face-to-face sessions. For classroom interventions, grouped work tasks, with one member publishing the resulting work, can enhance community and bring members into the domain more fully. Finally, this may be an adequate juncture to promote progressive reflection of the course as student plenary and continued target-setting as signposts for future directions.

11.6.5 Assimilation Threshold: situated interpersonal community interplay

Characterised by: sharing information and resources, community questions and answers

In terms of engagement of a Community of Practice, this threshold represents an object as a set of enhanced affordances that only arise through social participation, such as sharing resources, encouraging others, acknowledging others views and contributing to group discussions. It necessarily involves an integrated community, never properly established with Under-19 learners in either Phase, to which validation to others views is a threshold for social discourse, so this state hinges on the group dynamics and interactions, over personally driven actions. In terms of joint engagement to assimilate objects, a cohesive community sustains an engaged momentum and potentially a socially mediated resilience to affective divergence that may create dissonance to objectives.

Recommendations

To help embed this within the problematic divergent Under-19 group, the designation of roles, such as digital student mentors may help. This may take the form of allocated responsibilities, such as requiring mentors to perform Strategic Actions, such as 'what to do, how to hand in', more akin to leadership. This would be a pedagogical-design to structure interactions, though the adult communities appeared more self-regulating

without the designation of responsibilities, by using the network to share information, such as how to submit, what to include and organisational information. Focus on this enhanced sense of group-self can be exploited with continued dialogue, as discussion threads based on small groups with directed questions.

It appears that at this latter threshold, with students entrenched in situated mobile practices and bound by this study's empirical parameters, could emerge a more vibrant discourse, aligned to Cognitive presence in the Col model. A useful framing of this enriched academic discussion would be to utilise the communicative actions from the LTCA theory to scale in critical thinking.

11.7 Momentum theory mapped to Threshold experiences

| Summary of Thresholds | Momentum as |
|---|---|
| <p><i>Apprehension Threshold: Visible Incursions</i></p> <p>Characteristics: affective notions of suspicion; a resistance to openness of personal individuality represented by open source software and social networks</p> | <p>Agency negotiated by the teacher</p> |
| <p><i>Navigation Threshold: Intentionality</i></p> <p>Characteristics: space exploration, membership negotiation and domain exploitation</p> | <p>Momentum as purposeful and personalised awareness of actions</p> <p>Momentum as co-constructed</p> |
| <p><i>Habitus Threshold: Situated Embodiment</i></p> <p>Characteristics: redefined personal membership and embodiment to online space, affective experiences</p> | <p>Momentum as 'checking in'</p> |

| | |
|---|--|
| such as (autonomous) disorientation and potentially frustration | |
| <p>Efficacy Threshold: Self-actualisation</p> <p>Characteristics: affective statements and declarative statements of intent to act</p> | <p>Momentum as reflective and development</p> |
| <p>Assimilation Threshold: situated interpersonal community interplay</p> <p>Characteristics: Sharing information and resources, community questions and answers.</p> | <p>Momentum as normalised</p> |

Table 17 Threshold experiences explained as Momentum

11.8 Comparison to Salmon Model

In terms of application and interpretation here to situated learning and social networks, Salmon's 5-Stage Model (2000), also with a focus on engagement, may be comparable. This suggests different stages of participation within an e-learning environment ranging:

Stage 1: Access and Motivation

The student is in a state of transition to a form where learning happens everywhere facilitated by mobility, yet is aware that support is available from a moderator if needed. Peers are aware of a sense of community.

Essential differences between Salmon's classification to this study:

Students initial response in this demographic were ones of suspicion (of openness, of teacher and institution's intentions and of community), uncertainty of usefulness and apprehension (to act), which could impact negatively on their motivations – quite separate from the immediate personal use identified by Salmon above. LEUs did not immediately perceive benefits of the network, until use was blended to the classroom.

Stage 2 Online Socialisation.

Participants create their own micro-community. Salmon indicates affective presence that learners bring with them.

Differences:

This arose later, and more gradually, than early in the course in this study. Moreover, it needed some facilitation by the teacher in the shape of humour and language used, less formal learning activities, declaratives of *lifeworld* used. Emotive disclosures increased the socialisation but came from students directly, but gradually in the life of the course.

Stage 3 Information Exchange

Students achieve co-operative tasks, gain confidence and benefit from peers, while learning to manage time.

Differences:

It appears more nuanced than the descriptors above, for instance a rapport and affinity between learner and teacher and learner and community takes time to accrue and the benefits are not always apparent to them in terms of their peers, with more interviewees citing connectivity to the educator or access to resources. Tasks were routinely uncompleted.

Salmon Stage 4 Knowledge Construction

Learners increasingly take control of their learning, working more independently.

Differences:

Similarly, this happens at a later stage of the process, but is highly contingent on confidence, intrinsic motivation, and goals that may lead to future goals. There are learners in this demographic for whom this is a bridge too far.

Salmon Stage 5 Development

Learners are able to extend what they have done beyond the context to their own work place or on new challenges.

Differences:

This was unseen in this study, yet an enhanced feature was the impact on other areas of life – not of e-learning used in the study, but of new found literacy confidence (i.e. self-correcting grammar and spelling online, reading to kids, knowing how to learn better).

11.9 Momentum and Social Media Fatigue in the Continuum of Engagement

Lifeworld is “...the locus of interaction between ourselves and our perceptual environments and the world of experienced horizons within which we meaningfully dwell together...” (von Eckartsberg, 1998, in Valle, 1998).

The form of learning experience based around an online situated network and community of practice has distinctive advantage:

- student as central to personal objectives
- assistive presence from a teacher and community
- moulding independent behaviours as mobile actions
- front-loading materials as advance organisers
- nurturing reflection through sustained discourse.

Occurrences of momentum are located throughout analysis related in this study to incidence of ‘engagement’, which was identified at the outset as a barrier to success for the population in the research problem. Momentum is the trajectory of actions towards engagement (as attitudinal commitment), which is the target.

There are pitfalls to situated online learning practices as well, which teachers need to be cognizant of, such as students falling behind where a teacher expects participation (for instance, if access to the site is not made) making ‘flipped’ learning problematic an unrealistic affordance to this writer.

Analytics of what is taking place in the network can support teachers greatly for building characterisation of their student group so that early intervention can be made possible – for example, students perpetually forgetting their password, not logging in or posting, or posting affective disclosures can illuminate where students need extra support.

11.9.1 Enhanced Engagement and Momentum

For affordances to be realised, a sustained engagement with the form is necessary, since enhanced affordances (object-orientated behaviour, peer support, sharing information, instances of *lifeworld* posts that promote positive ownership and enable revelation to teachers of students experience and prior knowledge, potential for knowledge construction) are made when students are active agents in the construction of content within the environment. These goals arise as interpersonally facilitated via a prolonged use of the network – especially via a cohesive and interactive community.

Across the four separate strands of case study, momentum in use and an inculcated relationship to the form occurred after, or in the build-up to, assessments, via repeated phases of learning in the third instance (Repeat-Repeat students), or as modelled through a cohesive community. Based on the Frequency of Posts (Figure 11, p.186), higher incidence of members integration to networks (Phase Two Adults) show increment in activities beginning in the middle-end of the first term (November/December). This sustained period of activity was typically in a period before more sophisticated (perceived as the cognitive ‘knowledge construction’ posts represented through the LTCA theoretical codes) uses and actions occurred.

| | |
|--|--|
| <p>Momentum defined:</p> | <p>Empirical indicators from study (posts made, observed actions, interview responses), and</p> <p>Teacher supported with</p> |
| <p>1. Incremental by gradient of volume (of contributory UG content) and frequency of posts</p> | <p>Increased presence by members draws in other members, especially as blended shown in Phase Two, particularly continued increase in activity shown in Phase Two adult group</p> <p>Teacher supports with:</p> <p>Reduced ‘notification saturation’ when more content is generated by students, instead teacher monitors, answers and clarifies.</p> |
| <p>2. Higher frequency of posts equates to improved quality of posts, as purposive actions</p> | <p>Developing terms of use by HEUs (as grouped in selective codes table), particularly Joe and Jane, such as seeking feedback, addressing the community, sharing found resources, starting and sustaining discussion threads</p> <p>Teacher supports with:</p> <p>Stretch and challenge questions</p> |
| <p>3. A changed perspective of the network as personally supportive, rather than institutional</p> | <p>Changed views and behaviours (as actions or posts) of Karen and Briionny, as well, Joe as Jane and Tony in frequency of posts as repeating student between Phase One and Two and interview responses</p> <p>Teacher supports with:</p> <p>One-to-one guidance, encouragement, positive appraisal</p> |

| | |
|--|--|
| <p>4. Interpersonal activity, through sustained participation, social cohesion, peer appraisal and support</p> | <p>Increments in posts by adult group that developed between members irrespective of teacher’s input, such as Lorraine and Karina’s interview answers in Phase One</p> <p>Teacher supports with:</p> <p>Informal posts, humour</p> |
| <p>5. Induced by perpetual commitments and agency actions over time</p> | <p>Resolve of Joe, Tony and Jane cited in interviews, Cerys (Under 19) and Patrick in posts</p> <p>Teacher supports with:</p> <p>Recognising and validating contributions, potentially with ‘badges’, or otherwise offline</p> |
| <p>6. Dependent on a clear path with signed, visible targets, horizons, draws on goal-orientated</p> | <p>Responses to teacher posts such as reminders of assessment dates and details, which result in ‘likes’, comments and submitted drafts. Shown in interviews as affordance by David (Phase One adult) and LEUs in Phase Two</p> <p>Teacher supports with:</p> <p>Bite-sizing chunked content; returning to posted targets in classroom sessions</p> |
| <p>7. Behavioural change, developed confidence and maturity</p> | <p>Instances of students posting apprehensively at first due perhaps to overcoming self-consciousness about grammar use; ownership and personalisation lifeworld posts, such as Bella in Phase One. Open declarations of confidence improvement in Phase Two by adults.</p> <p>Teacher supports with:</p> |

| | |
|---|--|
| | Positive appraisal online and off; encouragement |
| 8. Enhanced by reflection | <p>Posts showing links to prior knowledge and methods previously referred, declared as helpful by students ability to look back and join-up (e.g. Tony, Phase Two).</p> <p>Teacher supports with:</p> <p>Regular plenary recaps intervals, drawing on content covered so far, showing links between units; face-to-face and 1-to-1 interviews</p> |
| 9. Not predicated on sporadic sessions, but becomes seamless: reflection and horizon-scanning | <p>Interview agreement that connecting helps look backwards and forwards on the course</p> <p>Teacher supports with:</p> <p>Notifications of reminders, referencing prior knowledge and work and upcoming events.</p> |
| 10. Momentum is acclimatisation and enculturation to different forms, tools, methods: getting accustomed and enculturated to systems. | <p>Open-publishing and collaborative editing as acclimatisation to systems, with students initial apprehension overcome. Partly momentum here may be enjoyment or confidence-based.</p> <p>Teacher supports with:</p> <p>Acclimatising normal use through blending to classroom activity, scaled to new methods, such as Open Publishing and Collaborative Editing.</p> |

| | |
|--|---|
| <p>11. Based on purposeful goals, not rhizomatic or random seemingly pointless actions</p> | <p>Indicators of background noise and misuse as extraneous; questions posted focused purely on objectives and seeking guidance.</p> <p>Teacher supports with:</p> <p>Creating target supporting activities resembling class-based practice (i.e. stretch and challenge, ensure involvement, use names, correct and clarify) so that extraneous, informal posts do not tip the balance from purposeful activity</p> |
|--|---|

Table 18 'Momentum' defined and linked to Empirical data, with supportive recommendations of teacher's support to inculcate momentum

This is mapped as ordinary and idealised uses to inculcate mobility, shown below. This is particularly helpful in the delegation of roles and responsibilities surrounding mobility where use of networks becomes acclimatised, which may be particularly useful as a scaffolding structure in order to realise affordances and integrate Mid-Engagement Users to higher purposeful actions.

11.9.2 Social Media Fatigue

As seen in the table below, affordances have inverse perceptions to LEUs. This table draws from LEUs experiences (right) against affordances identified by HEUs and drawn from research literature (left).

A main affordance to a teacher and to the community of a social network – and presumably the institution for analysis of performance - is 'visibility', which at an individual level can result in enhanced performance actions of students identified earlier as host to a range of engagement affordances of use (peer-support, sharing resources, self-regulation and organisation, mobile orientation to a curriculum and community, joining-up, reflection/reinforcement) and potentially increased confidence.

Yet through each affordance it was clear to track LEUs perceptions as problematic and resistant to engagement as an outcome. For instance, in the table below it can be seen that HEUs and the researcher view *sustained access* to the network as a form of

'residence' or a base, while LEUs would view this as 'invasive' to their private *lifeworld*, remaining guarded and non-participatory and take a stance of anti-socialisation.

Also, while some students viewed notifications as a helpful reminder and as continually connected access, others reported a sense of 'saturation' that they find difficult to act upon. Reconciling these adverse conditions becomes problematic and a responsibility of teachers, with some suggestions made in 11.9.3 Negotiating Social Media Fatigue.

| | |
|----------------------------|------------------------------|
| Educational perception | Individual, LEU, perceptions |
| Visibility | Surveillance |
| Publication | Inhibition |
| Peer-support | Ambivalence |
| Affective-cohesion | Divergence |
| Sustained residence | Invasive |
| Self-determination | Automation |
| Mobility | Disorientation |
| Connected | Saturation |
| Multi-voiced | Silence |
| Social | Individualism |

Table 19 Anti-social media properties from contrasted perceptions

If momentum is accumulated agency (through frequency of participation as user-generated content becoming more purposeful to objectives), then the negatives clustered as *Social Media Fatigue* (SMF) are characterised as affective through ontological and phenomenological experiences. These are grouped in the following table in three strands as *Attitudinal*, *Behavioural* and *Agency* (or activity) based, with explaining comments and links to the data analysis shown.

| Social Media Fatigue meta-category | Social Media Fatigue property | Population effected | Comments and empirical reference in study | Potential outcome |
|------------------------------------|--|---------------------|--|--|
| Attitudinal | Limited awareness of technology functionality as supportive to their needs | LEU | This is a lack of investment by a student in activity or in meeting their needs: Tony reflected on this as his view of the network in Phase One, alongside LEU in interviews: <i>“I thought it would be pointless”</i> and <i>“When we first looked at it, we didn’t know, like, later on how important it would become to us.”</i> | Non-use by user or gradual recognition of intrinsic needs supported by posting |
| | Ambivalence to the (online) mode of delivery, resistance to coercion to engage in social forms | LEU | <p><i>Joan (Phase One LEU adult): “I like to study alone and Im always pressed for time and did not really want to get involved with debates or reading other peoples work”</i></p> <p><i>Mary: (Phase One LEU adult) “Having learning difficulties, there are questions, I would have preferred to ask in private. The thought of others reading and judging my work makes me come out in a sweat.”</i></p> | Non-use; divergence from community models of social learning |

| | | | | |
|--------------------|--|-------------------------|--|----------------------------------|
| | Perceptions of network activity as suspicious surveillance | LEU | Observation on peers non-use by Drake: <i>“they feel like failures so it’s all there, then... ‘on the wall’ for everyone to see. I reckon they think the college has ‘got them’ if they try.”</i> | Non-use. |
| Behavioural | A ‘Do-it-later’ approach to notifications, which does not result in action, risking the signalling of crucial generative material becoming ignored | Both HEU and LEU | Drawn from Content Analysis in incidence of reminder posts from teacher acknowledged by students with assurances to complete actions, but not doing so (resulting in repeated online and offline reminders). | Disengagement and falling-behind |
| | Content saturation through notifications as inhibiting interaction and response rates by students leading to disorientation | Both HEU and LEU | <i>In situ</i> observation drawn from classrooms of students logging-on with several old notifications showing; students became confused, frustrated and overwhelmed. Also disclosure in adult HEU interview of notifications as “wasteful” to her attention and: “I would say I’m overwhelmed by notifications”, leading to discussion of how she actively controlled the settings to | Cognitive load |

| | | | | |
|-------------------------------|--|-------------------------|--|--|
| | | | avoid this drain on her attention to things she selects that support her (e.g. educational notifications). | |
| Agency-based (actions) | Passive lack of participation or contributory content generation | LEU | Lack of participation or posts of any sort, or viewing the network as a teacher's repository for classroom resources only. Blended use results in limited contributions. | For low-confidence students, it is important to coerce action (e.g. through blended interventions) to support progress. Some HEU's contributions may subside – see supporting comment below. |
| | Transferring responsibility to others, but benefitting from resources and ideas resulting in an automation of activity and shallow knowledge | Both HEU and LEU | Students unwilling to post ideas or research, because others steal their ideas (expressed by HEU towards LEUs) | Group divergence, lack of investment and sharing. |
| | Diminished access to the network, leading to: atrophied agency and cognitive load from a critical mass of information on checking-in. | Both HEU and LEU | Off-task activity posts expressed as 'noise' by HEU; observed LEUs finding the network difficult to navigate and to source the content they want. | Adult activity levels dropped in Phase One as the course progressed, while the opposite happened in Phase Two. |

Table 20 Social Media Fatigue grouped as attitudinal, behavioural and action-based with links to analysis from the study showing incidence of the descriptors

The above table is designed to show how the properties identified as *Social Media Fatigue* (SMF) were not exclusive to LEU, but that all students are prone to aspects of it. The properties are categorised (left) with explanations highlighting where supporting empirical data was drawn from to identify those theoretical principles. The segmenting of the population (HEU/LEU) is not to present the findings as dichotomous, as there were disconfirming cases among participants. For instance, the '*Agency-based*' category describes a lack of participation as contributory to *Social Media Fatigue*, yet all students are vulnerable to inertia as lapses in online responses and contributions to content; however, only a sustained period of inaction would be perceived as SMF and such students might become LEU, as a proxy indicator of disengagement risk. Exceptions were in the Phase One Adult group, when responses diminished (See Figure 11, p.186). In those periods, the instructor made frequent checks on understanding and problems, which revealed students managing confidently (and individually) offline, if not co-operating visibly online. In such case, SMF was not incidental to risk of disengagement and the group's activity subsequently increased in the next unit. In other instances, the demarcation between LEU and HEU is more clear, suggested in the *Attitudinal* responses, which reflect students' low expectations of the network's quality to support them, anxiety associated with public posting and low self-esteem. Attitudinal issues are clear barriers to participation affecting some students and it is not easy to transition this into behavioural engagement framed in terms of actions. This is where a coupling of the categories with the later Recommendations for Negotiating Social Media Fatigue (Chapter 11.9.3) are presented to circumvent apprehensions that may atrophy to further disengagement (see Figure 21 below).

As stated, polarised perceptions of the teacher, community and the HEU can manifest in 'stuck thresholds' (Meyer and Land, 2005), silence and apathy as proxies of disengagement, with constituent elements of 'Social Media Fatigue' clustered as inverse to momentum, with alternate, ambivalent perceptions of affordances (See Table 19, p.283). Often such resistance were exclusive to LEUs, such as 'sharing' and offering interaction as a normal discourse of social media action. Also, characteristic of this type of user was a general resistance to participation and low confidence, comprised in the following graphic of anti-social experience - behaviours that prevent overcoming thresholds beyond the initial 'creation of a profile account' as

shown below, with perceptions of the network clustered to the right. This map was highlighted in 7.2.4 (Affective Coding) and is returned to now to visualise the elements comprising theoretical construction, as well as to emphasise how these indicators impede interaction in social media spaces.

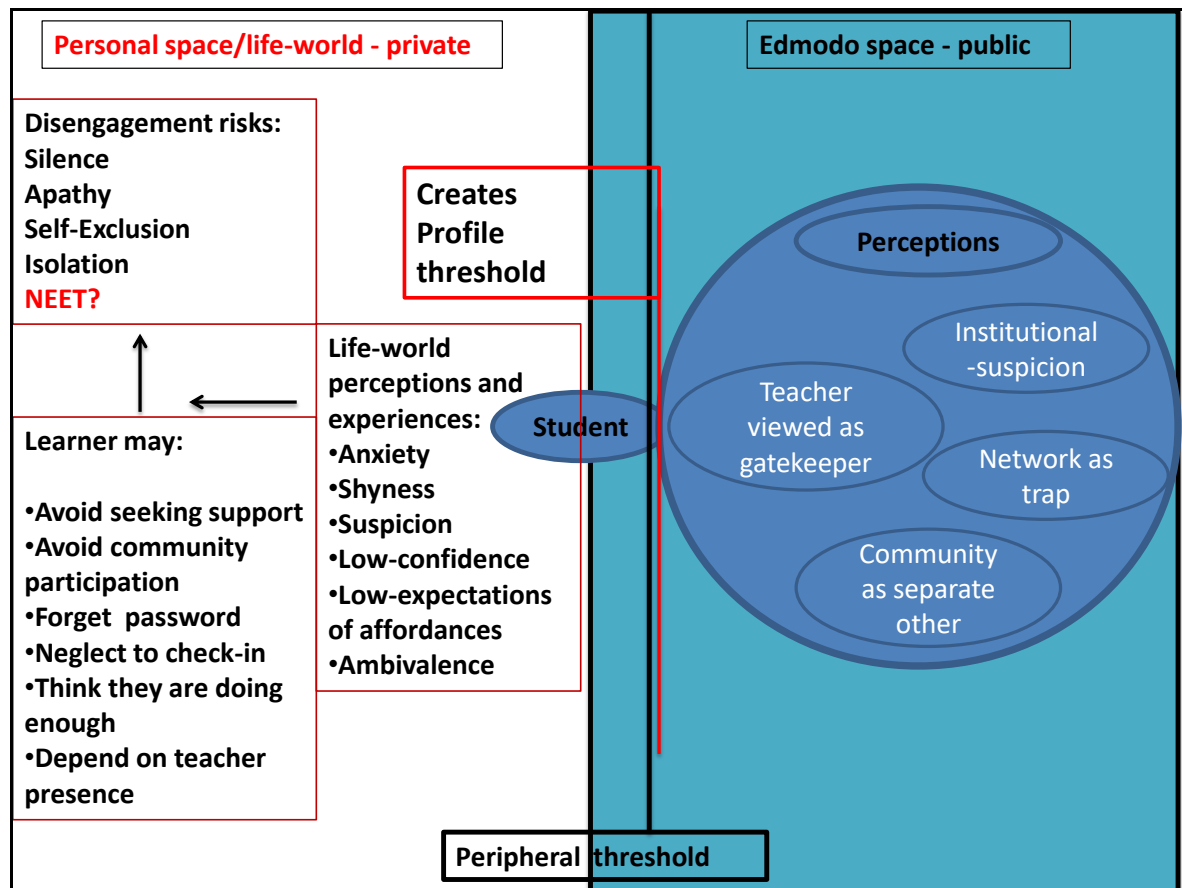


Figure 21 Map of Disengagement experiences and indicators

The indicators are categorised as *Social Media Fatigue*. Represented in the graphic above are:

- Affective disclosures, which are not acted upon by subjects through Self-Concept actions that precipitate *habitus* change (such as seeking support, handing in work, attending). This can have negative, disengagement consequences, such as dropping off the course and out of college entirely
- Attitudinal dispositions, such as suspicion towards the form, the teacher and the institution, which go unchallenged by subjects (such as posting during Blended Activities, checking-in, responding)
- Potential for social media to deepen ambivalence and lead to disengagement.

Social Media Fatigue is also manifest as resistance to the technology of social media in terms of the form and in terms of community approaches, shown by Joan in Chapter 11.2 Edmodo as Mirror of Classroom Activity:

Joan: *I have a very busy life and I guess I'm a little old fashioned when it comes to studying... I like to study alone and I'm always pressed for time and did not really want to get involved with debates or reading other people's work, which I know sounds really selfish of me.*

Social Media Fatigue is highly individualised and where tools of interactive community are presented as a method of inculcating objectives a strong resistance to such forms may cause a fragmentation and stagnation of the fertile opportunities such technologies afford.

SMF reflects a level of disengagement as inverse to Social Media Momentum, shown as an incremental frequency of check-ins and posts that appears more purposeful to objectives and which is characterised by an enmeshing with a community network towards goals. However, Momentum and Fatigue are not dichotomous conditions. An incident involving the adult HEU 'Joe' illustrates Social Media Fatigue as exacerbating different factors. When Joe missed one week of the course, he became quite distressed on returning as he felt he had fallen behind and couldn't understand the unit that had been started when he was absent. Between the sessions missed, Joe had read materials posted by the teacher, then seen the posts made by his peers and this appears to have entrenched a sense of being in a 'stuck place'. Joe posted his own responses, which were copy and pasted from very high level websites in order to interact, but had missed important points in instructions and resources posted. This may have been due to Joe's dyslexia and his need for learning support to take him through slowly with clear instructions that couldn't be replicated online at that stage (this incident happened long before Joe became a HEU). Back in the lesson, Joe was bewildered and overcome with anger and left the room, but returned once he had calmed down, listening carefully to instructions and getting on track. This shows the value of affective disclosures by students from the analysis as a means of expressing disorientation and receiving extra support. For Joe, the SMF was extraneous load as, in the session where he walked out, the other students worked individually at computers on research and writing. Joe went to a far higher level of documenting

content for research than was necessary and these resulted in pasted posts without any processing of the information or its relevance. Here Social Media Fatigue is shown as not limited to LEU, but present in the experience of a HEU whose own determination drew him back to the group. Social Media Fatigue is shown as:

- Initiated by an attempt to use the network to stay engaged and involved
- Misunderstanding the formal assignment and becoming agitated at being 'left behind', notified by a plethora of posts by others
- Misconstruing agency (posting actions remotely) as understanding the assignment brief and participating
- Attempting to keep up through posts which were purposeless and superficial
- Bewildering and stressful on returning to the classroom context, possibly reinforced by the posts made while absent
- Potentially leading to disengagement (leaving the classroom and possibly the college)

The presence of the platform is here perceived as preventative to 'catching-up' for struggling students trying to understand objectives remotely, which differs from Martin, in the same group, who navigated around two-thirds of the course through the network after he had moved from the area with no apparent difficulty. The difference between these cases may not be limited to the respective learners' abilities.

11.9.3 Recommendations for Negotiating Social Media Fatigue

Framed as a problem of surface-level learning, recommendations are made in this section to overcoming the issue of Social Media Fatigue.

In order to avoid cognitive load from social media posts as information-heavy saturation, which can induce disengagement, content posts must be organised effectively to promote interaction. Combining communications according to multimedia principles explained by Mayer (2001), as the Redundancy Principle, which involves the use of two channels of communication, graphics and narration, over multiple combinations eases cognitive load and clarifies learning material. Mayer also advocates using information sparingly, which should be considered for notification purposes. Bite-sizing content to avoid saturation is also imperative, particularly for

students with dyslexia, poor working memory or ADHD conditions, where it's recommended to pair and number instructions (1, and 2) for easier comprehension.

Teacher should check-in with absent students through the network and offline and draw attention to salient detail that has been posted, expecting responses to specific posts, offering emotional support where affective disclosure has been made and asking how they can support them.

Social practices of literacy, include actions such as sharing, i.e. 're-tweeting', which are redolent of plagiarism as a symptom of Social Media Fatigue. Students were vulnerable to similar approaches in class-based activities (copy and pasting Wikipedia context, taking others ideas without firm understanding), which is problematic in terms of both User-Generated Content as original and deep comprehension. This may be overcome by re-constituting text-based ideas in multimodal form to avoid copy-and-paste and plagiarism as superficial responses to content.

Finally, a raised expectation of student responsibility-actions is shown below, which would seek to integrate individual agency to social, community values.

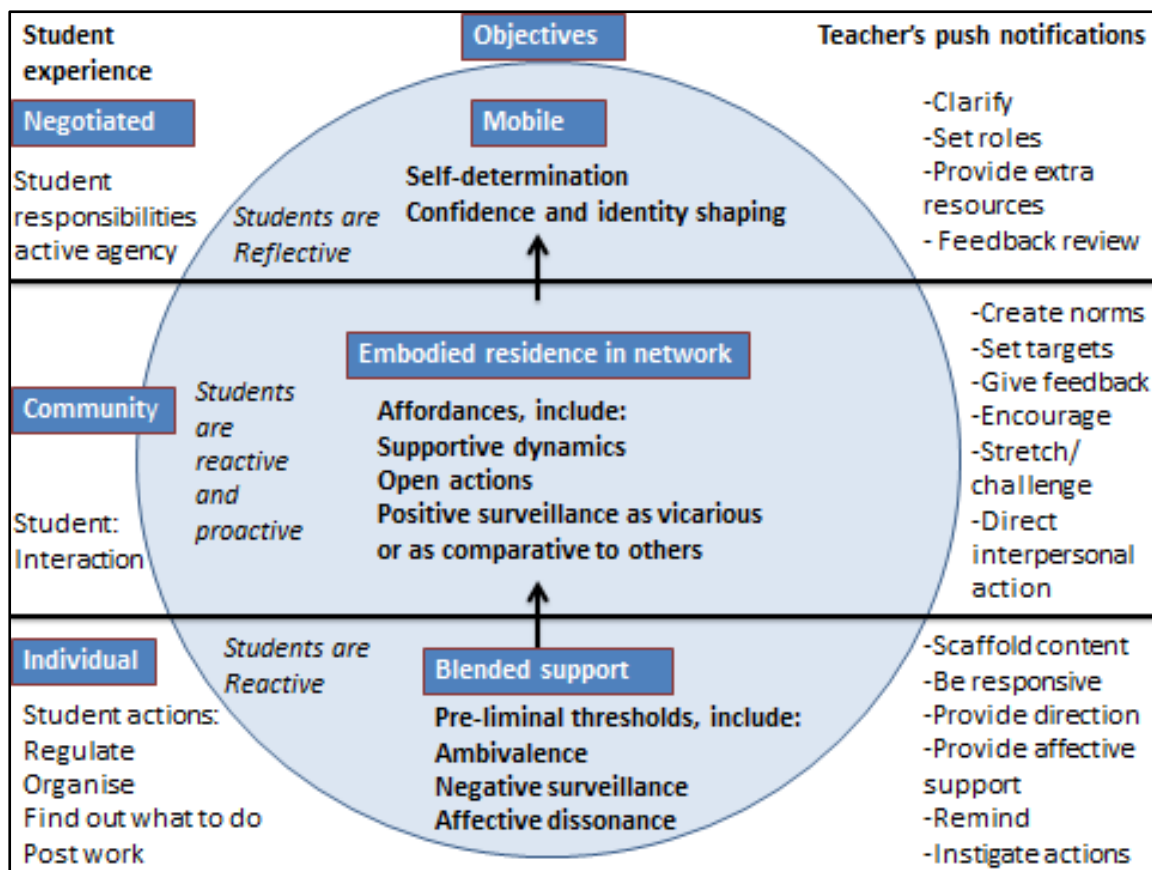


Figure 22 Maps of roles and actions to manoeuvre individual to community-mobile model

In the figure above, the student's responsibilities are organised to the left, with the hypothetical thresholds horizontally drawn and the teacher's push-notifications organised on the right. In blended support, the teacher provides prompts and reminders along with timely visible support to induce use of the network, with the students' responses framed as reactive to the teacher's directions. If enough action is pitched by the student to the network a sense of residence is enculturated and associated affordances arise, including student-modelling of behaviours as 'positive surveillance' (where students check what others are doing) norms, resulting in more proactive behaviours by students. Here the teacher may move beyond the organisational support needed to inculcate residence and shift focus to cognitive objectives, such as individual target-setting, giving feedback to work submitted, providing stretch-and-challenge tasks or questions, leading finally to raise student reflection on processes through feedback reviewing.

Chapter 12 Conclusions

12.0 Organisation of the chapter

This final chapter draws the salient points from analysis and discussion to respond to the research questions. It then moves to a series of recommendations building from the findings, particularly with regards FELTAG and the direction of the sector's technological provision. The significance of this is highlighted and future directions of research raised.

12.1 Addressing the Research Questions

1. *What do the attitudes and perceptions of users reveal about online networks and communities as supporting engagement among FE re-sit students?*

Findings are dichotomous. It can be said that an assistive network enables higher-engaged students (HEUs) to furnish their own intrinsic motivation with extra opportunities to enrich their classroom experience. Those students were more amenable to the construct of a community by contributions and interactions and this appears to enhance their personal approaches to goals, overcome individual difficulties and supplement classroom-based experiences (for example, the ability to share, to support others, to find-out, to join-up and reflect). In interviews, HEUs, although initially apprehensive and sceptical of the network, expressed recognition of a perception of the network as facilitating objectives on the course; community was assistive to such objectives as increased agency and content supported a more dynamic network with richer discourse. Although the purpose of the study was not to quantify use of the network with success on the course (measured as a C grade), the adults were highly successful in each phase and HEUs in both populations almost unanimously passed at the required 'C' or above level. This suggests that the network offers a layer of support, which may be labelled as engagement, whether by enabling a link between sporadic and intensive sessions or by a teacher being available to answer and clarify.

LEUs could experience a sense of surveillance as prohibiting engagement, regarding the network with distrust, as exposing personal literacy weaknesses, and often held ambivalent attitudes towards socially co-operative approaches to activity, potentially due to personal shyness and low-confidence. Such attitudinal, emotional and behavioural barriers made for fragmented communities, with individual use by HEUs focused on interactions with the teacher, resulting in less community 'enhanced' (as independent, mobile and social) affordances arising. For most Under-19 students, the socialisation and visibility of the network prohibited inclusivity and even the modelling of good practice by HEUs (who tended to be Under-19 students repeating the course from Phase One to Phase Two) did not result in increased use.

2. How do mobile social networks and communities' impact on literacy practices?

There are indications reflected in some of the empirical data that the visibility of social networks can have positive influence on attention to formal language uses, such as spelling and grammar, particularly with HEUs. This was framed in interviews and observations, with students finding, and appreciating, an opportunity from publishing of affordances to perform and exhibit language in a dynamic context with a responsive community as readership base. This has resonance in the literature to notions of audience as empowering authorship that are helpful in improved qualities of writing and confidence through cultures in closed networks, where publication and peer-support are contextualised as normal behaviour. However, again the findings are dichotomous, as the empirical data to represent accrued engagement, confidence and attention to writing process was drawn either from the adult groups or from a small proportion of the population. It is likely that the visibility of students' literacy practices needs careful implementation and affective support to situate it as normal in open arenas associated with social media, since for LEUs, intrinsic low-confidence is not easily overcome by negotiating such practices online. Indeed, adverse reactions to public literacy as open performance can impede engagement. A supportive, social community is helpful in overcoming such attitudinal boundaries and to normalise the exhibition of literacy through interventions such as small-scale 'sketching' activities can gradually improve confidence and acclimatise learners to sharing as publishing, which may have congruence with eventual improved attention to writing processes.

3. *How does the realisation of affordances complement and facilitate understanding of elements of co-operative or community models of engagement?*

In the clearest case of improving community engagement, carefully selected blended uses and interventions support co-operative approaches. Furthermore, there is a case to hold that digital mentors, who take a positive lead role in affinity spaces such as social networks, may model purposeful and positive studentship in communities. This was the case with Repeat-Repeat students who undertook organisational tasks, asked questions on behalf of themselves or the group, shared resources and occasionally moderated others inquiries. Many students perceive the affordances as based around access to the teacher, rather than a community. Enhanced affordances are mainly exploited among the adult population of the study, suggesting higher levels of maturity, intrinsic motivation and capability are needed to make best use of the affordances arising from social media. Given positive remarks from LEUs about aspects of Edmodo's functionality, e.g. with regards the collaborative research task (in Appendix), there may be value in use of networks with students on vocational courses, particularly as there may be better social cohesion between members familiar to one another through such course and who are working with common, new goals, rather than repeated ones.

It's probable that the compulsory course itself contributed to low participation levels, reflected by the offline resistance to learning activity. The re-sit context seems to work against 'natural' intrinsic motivation to repeat a course problematises agency, which such technologies are dependent upon for enhanced engagement to be realised. This was apparent in observations of blended use, in student resistance to participate symbolised by forgetting passwords (as indicative of membership), and in interview perceptions of the network as a trap, rather than a safety net. Momentum is induced by offline cohesion of communities and improves Social Presence elements of a Col, which help such students in this study to become more self-regulating, responsible and organised, but the cognitive realisations of learning are less distinctive and point towards online practice as a poor replacement to face-to-face classroom provision for these students.

12.2 Recommendations arising from the study

12.2.1. Recommendations for practitioners

There may be value in inviting ‘artificial’ personalisation of the network using an alternative avatar or pseudonym in initial profile construction (McBride, 2009). Clearly, there are arguments regarding validity of identity, but observations of this in the classroom showed students manipulating ‘fake’ options (through iconic animated avatars), which created initial attraction with the network and induced authentic profiles (shown by changing profile images to real ones) arising later.

It’s important to encourage an immediate imprint on to the space of a network, so initial posts following introduction to the network are advised to precipitate ownership. Immediate teacher requests to post formal work appeared to dissuade student use (in Phase One) while informal (with less direct connection to the syllabus) contributory comments to threads (in both groups in Phase Two) helped negotiate interaction that could be built upon. Since much of the network activity resembles classroom activity, early use of a network may improve later engagement to the network in the shape of enhanced personalisation, such as ice breakers through introductions or students representing their outside interests through objects as multimodal (sourced photos, videos or creative work). This may see input in social and cultural capital of students’ lifeworld experiences promoting ownership, to help mould views that networks are viewed less as a formal, institutional platform. Extensive text or excessive extraneous information is unadvised as potentially divergent to sustained interaction.

12.2.2 Integrating networks

If the above description holds, then this stage - building from the previous one - can disrupt gaps between the engaged/disengaged. Principally, two steps are important at this early stage:

1. Instructors make a grand tour of a network within lesson time to support students’ explorations and understanding of affordances as realised by students themselves, and
2. Instructors democratically establish normative actions, or expectations of use, such as how often to log-on, response times from an instructor, acceptable language, etc; these will help to draw boundaries of acceptable

behaviour, which may be compromising when the network is to be regarded as shared and social, but as necessary.

These stages, framed as co-construction of the network and its culture may improve ownership, participation and student voice. Integration of all members to networks may be enabled by asking students to make first posts in groups, rather than individually.

12.2.3 Differentiated notifications

Owing to cognitive load, educators must be careful of overwhelming students, but a complete absence of any activity may diminish check-ins, so early push-notifications may be based on bite-sized reflective questions to join-up sessions, posting reminders and targets for wider goals.

As a threshold is proposed based upon growing agency and inter-dependence between community members, there may be some currency (as was found in the latter phases of Phase Two between the cohesive adults), in teachers decreasing responses to any and all enquiries in order to improve self-determined interpersonal student support. Classroom interventions such as collaborative work in both populations in Phase Two improved relationships between students, which improved later individual use of the network shown in the frequency of posts following those interventions. This included Open Publishing as intervention, which supported increased mobile access between adults and gave students a sense of personal confidence. Here notifications were differentiated in terms of feedback to individual members to the work posted, creating targets for improvements, reviewing previous feedback for self-correcting actions and with stretch and challenge targets.

Momentum appears to be an enculturation to online learning based upon time, frequency of actions made and socialisation, but it is important that inclusivity is not assumed and that educators remain vigilant to low-level participants. Differentiation is important, with sustained dialogue in discussion threads supporting HEUs, alongside directions for use, such as supporting others personally through surveillance thresholds. Encouraging direct messages as a point-of-access for support or clarification to students who remain unsure of what to do helped to enculturate peripheral members to greater negotiation, but general enquiries (particularly basic ones) could be transferred through the teacher's voice to the group, so the locus of

control becomes more situated in community interaction. For classroom interventions and grouped work tasks, encouraging LEUs to publish the resulting work helped enhance community use (in Phase Two) and brought members into the domain more fully.

12.2.4 Increase student regulation responsibility

Based on the increased actions of Repeating Students in the study, the designation of students as digital curators or online mentors can help bind communities through a visible modelling of positive behaviours and motivations. The delegation of roles and responsibilities at a low level would improve student agency and interaction, alleviate teacher workload and improve overall group engagement. This could include:

- Student-directed advance organiser notifications from a handbook
- Appointing research co-ordinators to find and share resources linked to parts of the syllabus
- Synthesising activities to objectives through questions between sessions to students, i.e. *'why did we do x in Tuesday's lesson? What was its purpose as an activity?'*
- Plenary writing by students supported by students developing tacit understanding
- 'Share back' to the teacher sessions, covering what students feel needs recursion
- 'Voting-up' on types of activities students enjoyed or found most relevant to vocational courses to assist educators with course design activities

12.2.5 Peer-Mentoring

To help embed this within the problematic disengaged 16-18 group, the designation of roles, such as digital student mentors may help others understand what to do (expressed in interviews with the LEU in this population, who cited seeing examples of others work as assistive to understanding). This was described earlier in the Mirror to Classroom activity section, with 'Repeat-Repeat' students adapting to the familiarity of having used the network previously by leading with actions as setting examples of use. In Phase Two, the teacher exploited this developed use by allocating responsibilities to Under-19 student Tony, such as encouraging his direct message questions or exemplars of work to be posted openly. This would be a practical means

to structure interactions, though the adult communities appeared more self-regulating without the designation of responsibilities, by using the network to share information, such as how to submit, what to include and organisational information. Focus on this enhanced sense of group-self can be exploited with continued dialogue, as discussion threads based on small groups with directed questions.

It appears that at this latter threshold, with students entrenched in situated mobile practices, more vibrant discourse could emerge, aligned to Cognitive presence in the Col model. A useful framing of this enriched academic discussion would be to utilise the communicative actions from the LTCA theory to scale in critical thinking, for example by posting 'Truth claims' that students respond to as summative statements of understanding following discourse, since they require supporting justification from discussions.

12.2.6 Recommendation for FE Management in utilising the Learning Support Assistant as online intermediary

In order to overcome some of the apparent tensions that exist between teaching staff and students, there may be currency in the utility of intermediaries to support skill sets and scale social presence through the intimate rapport often established with learners by Learning Support Assistants (LSAs).

Challenging tasks may be negotiated at a fine-grained level with the support of LSAs – showing what functions are available and how to perform them, in holding close conversations offline to develop targets, by encouraging and helping to clarify instructions and articulate ideas as posts. As with the wider aspirations of mobility, these are difficult actions to implement remotely, but the presence of LSAs within smaller LEU groups may help to facilitate agency.

An LSA offers close support by making the purpose and process of the task more transparent and to talk through responses, where a teacher may not be available. They also have strong understanding of students' needs, knowledge of the teacher's methods are paramount, but when integrated well, LSAs provide dynamic and informed approaches based on affective appraisal of learners and closely scaffolded targets for learners to become more self-determined. In blended uses, the LSA assisted at a 'desk-level', explaining the round of poll questions on a one-to-one basis in terms of their purposeful use for building arguments in the assessment in question.

While these are also normal functions of a teacher, the close monitoring and support can help negotiate the involvement of peripheral members that can develop a more inclusive community. For the purposes of this section, discussions with LSAs employed at the college were held that revealed further nuanced purposeful approaches that could support learners in networks, as well as the professional development of LSAs who are often overlooked staff in colleges:

- Small, break-out groups within the wider network (as were used for student work in Phase One of the study) as holding areas for 'stuck moments'
- Specific difficulties in curriculum content are negotiated in these small groups through webinars as mobile representation
- Students with LSA support record plenary sessions of sessions to post to social networks, identifying areas for further reinforcement and improving reflection
- Students with LSAs report back to the community what was useful, what methods were enjoyed
- LSAs can identify strengths of students resulting in a delegation of roles as supporting mechanisms to responsibilities within the network
- Students with LSAs determine further questions
- LSAs help to foster digital literacy skills, such as searching and extrapolating important information from found results, identifying resources to share as advance organisers, etc.
- LSAs help students with peer review of work being shared

Two concerns from this discussion were, firstly, the extra workload, often unrecognised and unpaid, that this can place on the LSA and, secondly, the strata being removed between student and teacher. However, the LSA may often have a special mediating role, where the teacher is perceived by 'distrustful' students as an authority figure.

12.2.7 Recommendations for FELTAG and policy

It is clear from this study that where any online network has limited investment from students, it becomes a teacher's repository of resources. A lack of interaction, proactivity and reaction are likely consequences, reinforcing hierarchical structures of power systemic to 'transference' models.

As less learner-centred and heutagogical, such remission to traditionalist methods undermines assumptions that student-centred pedagogical models help construct self-efficacy and self-determination found prevalent in the literature of pedagogical affordances surrounding social media. These assumptions are an obstacle to FELTAG (2014) initiatives. Many FE students have complex previous academic experiences and personal challenges that make objectives for autonomy and self-determination objectives problematic, which this study shows.

A digital literacy model of meta-cognition supporting 'how-to-learn' is required to realise FELTAG's aspirations. This is proposed as a scaffolded elicitation of digital literacy skill sets in place as a formal syllabus to support the uneven nature of staff and student understanding of how to harness learning technology across college cultures. FELTAG has instigated a challenge to 'innovate or be obsolete' to the sector. This is pitched onto staff and institutions, but needs to be framed alongside accredited skills in order for a paradigm change to be properly enculturated. Blending is shown as a supporting structure to engagement, both as integrating resources to help precipitate changes to course design, and as classroom-guided practice, which could see the 10 per cent objective (as recommended provision of online learning for courses) become tangible in practice. This could be based on activity orientated around technologies, supported by FE-contextualised pedagogies and even accredited.

If the 10 per cent objective is recommended as a substitute to classroom experiences, this risks divorcing learners from teaching guidance. This cannot be separated from current political reductions in sector funding shown in the Introduction. Autonomy may be FELTAG's trajectory; capability is one obstacle, student will is another, as this study shows. Autonomy may detrimentally affect contact hours between teachers and learners where contact is needed the most. 'Online' as substitution seems unsubstantial in light of the close support and social interaction which face-to-face sessions entail. The advantages of technologies towards self-determination realised by HEU indicate that the '10 per cent' figure would better be framed as a portion of classroom time spent using learning technologies blended with classroom use. This must be in keeping with respective curricula contact hours; the fit with an intense re-sit qualification does not leave much flexibility to manoeuvre wholesale replication of classroom activities to online contexts.

The FELTAG recommendations are a direction of travel for the sector, but online as learning method is deemed unsuitable to the re-sit demographic, who struggle with a range of complex factors. The re-sit is, of course, only one curriculum in FE, but Further Education students, often characterised here as having poor educational experiences, deserve more than innovation not grounded in proper research. It was discussed in the Literature Review that over-emphasis on social elements of learning can detract from the cognitive elements present in Col. This appears to be the case here: social factors were helpful in supporting engagement, taken as affective support and regulatory-organisational qualities that were hugely beneficial to the HEU participants. For the main part, this was found among adults in Phase Two where a cohesive community existed, which arose explicitly from the classroom offline context, highlighting its importance, particularly for adults returning to education. LEUs remaining peripheral, lacking knowledge or confidence, or as apathetic to participation present a challenge to redesigned provision. This has been shown here in part as attitudinal, but is likely symptomatic of learners requiring high levels of personalised support.

At its highest, instances of cognitive presence were detected in capabilities of planning ahead (proaction) and responding (reactivity), which may support the synthesis of learning, reflection and goal-orientated behaviours on a personal level - positive indicators of the cognitive presence. The point is that there is a gulf between knowing what actions to take towards learning (as social and regulatory) and meaningful actions resulting in learning. While the latter is ambiguous and open to interpretation based on individual perspective of what 'learning' constitutes, the actions of HEUs in this study were far from self-supporting a negotiation of complex curricula demands towards final outcomes. This is not to say better models, use and variety of technologies could not support successful distance learning of the English GCSE, but for the learners in this study blended approaches were necessary to take advantage of the online form, and those were mainly adult learners with high levels of self-motivation, who used the network to support what they did or were due to do in the classroom. Many online learning contexts are designed to replicate and mirror classroom contexts, yet the imitation is pale and mechanical – and probably proposed to compensate for reduced funding. There are feasible opportunities for aspects of the curriculum to be more accessible online than others, but these are highly dependent

on the self-motivation of students and the presence of a connected teacher, rather than merely supplying learning content. Students with low-confidence, literacy difficulties and poor past academic experiences and self-expectations will struggle to navigate a voluminous text-based course from distance, highlighting that the case for online learning is not a straightforward approach and that learner's individual needs are taken into account, over wholesale prescribed change.

12.3 Academic Significance

A modest contribution is made from this localised case study to debates regarding online provision for low-participating learners, particularly in Further Education, framed in the Research Problem as re-sitting students. It is clear that there are barriers to engagement within the population due to the compulsory course of study that appears to reinforce students' self-perceptions as 'literacy failures'. Analysis of technology, proposed here as social networks, to support engagement is mainly ineffective to purpose of integration to objectives, but reveals divergent attitudes towards progression, shown as low-confidence and manifest in attendance and behavioural problems. Participation becomes a choice that was rejected by a high proportion of the learners involved. This was revealed by a nuanced analysis, showing behavioural, affective and attitudinal barriers. The study shows how learning technologies can be read as analytics of agency as indicators of engagement. Moreover, the methods used highlight the difficulties in the transition to online learning contexts that may impact on expectations in FELTAG for apportioned online provision.

As contribution to knowledge, this study claims as central value the attention paid to LEUs and peripheral participants. The notion of engagement is an often used term in academic research and the broad brush strokes in literature can underestimate the nuanced social and academic factors that prevent LEUs from participation in online contexts. It's perceived that this study promotes their experiences to debates which surround provision designs that affect them directly.

12.4 Theoretical Significance

The study contributes to debates surrounding Heutagogy and the support of networks to improve self-determination and efficacy. The study highlights tensions with school-

leaver re-sit students in FE in with fitting Community of Practice and Inquiry frameworks and Salmon's 5-Step Model (2000), which require high levels of individual motivation for independent agency. For such models to be effectively realised to their proponent affordances, they may be predicated on pre-existing individual confidence, maturity and motivation that the re-sit population in this study find difficult to negotiate. It appears that there is more nuanced gradient to Salmon's 5-Step Model in particular, with online engagement in lower-confident students' requiring much support to the proposed stages, which reveal more gradients to enculturation. Momentum can be perceived as the processes of agency towards purposeful action and it appears, through the Repeating students across both phases that students become accustomed to learning practices in online networks (represented through Thresholds presented in Chapter 11) to engage in community- supported approaches. Becoming accustomed to such methods is not without tension. An unexpected finding from the study was the high incidence of affective disclosures by students that suggest that students' purposeful uses of social networks are not necessarily aligned to straightforward affordances cited in emergent literature. Varying factors extrapolated from the empirical study and highlighted in Chapter 11.9.2 constitute the hypothesis of Social Media Fatigue (drawn out in Table 20, p.284-286), which can combine and contribute as aversion to engagement with the modes of delivery.

It's proposed with supportive pedagogical strategies, students may navigate negotiation paths to realisation, giving way to a paradigm shift (momentum as enculturation) to online learning practices. Within a community a sense of mutual momentum between members can support the transitions between these threshold experiences.

12.5 Overall Conclusions

At the optimum scale of activity deriving from this study's analysis, the cohesion of the community contributes to learning experiences that arise beyond the personal, individual experience and this is facilitated effectively by the network and its various affordances. Co-operative agency is enhanced as individuals familiarise themselves to a network's functions, to one another and to common goals, which can be enabled through pedagogical strategies, such as blending activities including collaborative

tasking. Students may initially experience uncertainty, so activity is centred on the teacher as a main hub. Across both phases of research, adults formed stronger group dynamics and operated with closer purpose to goals over time. The stronger group bonds point to a gradually improved affinity with the network which improves independent approaches, supported by the network as an online point of orientation as a base and peer interaction. To the key question of a social network as supporting engagement for the 16-19 groups, activity was less defined and individually driven with agency routinely framed between individual students and the teacher. Group dynamics were partially improved by blended interventions and collaborative classroom activities, but younger groups, with less cohesion, are at risk of online fragmentation, pointing to a risk in transferring the weight of provision to online contexts for students at this level, with more acute levels of ambivalence between members, whose low abilities and confidence appear to contribute to a position of divergence with the methods. This would have negative implications for engagement where online learning is a main point of delivery.

With regards the modelling of behaviours in openly visible networks, it appears that non-participation by members would not necessarily impact on the goal-setting, motivation and self-regulation of HEUs in the Under-19 population, who exploited opportunities presented within the network towards goals regardless of peer indifference. However, LEUs were prohibited from enhanced participation by low motivation, attitudinal barriers and low confidence. Such dichotomous findings in uses and responses tell us that students have different needs and cannot be treated in one-size-fits-all approaches, such as those proposed in FELTAG at the outset of the thesis to provide more learning online as, crucially, it appears many of the affordances developed by students are dependent on internal qualities that result in enhanced provision for the highest able and confident. Critically, this study uncovers that many students are impervious to coercive methods to engage with technology (at least on compulsory re-sit courses), framed as divergence and resistance that may even deepen the causes of disengagement (including affective responses which are not acted upon, negative experiences of education, negative perceptions of staff and institutions, and values of educational goals). This may point to a sense of 'overwhelming' in the Dewey quote that headlines the thesis, where students fail to

perceive the opportunities and affordances of mobile technologies to support their individual goals and hinder the opportunities proposed in FELTAG.

Overall, the thresholds outlined represent a view of situated practices (situated identity, Open Publishing) performed in the open, social learning space in online networks as extensions of classroom behaviours in the lower engaged cases, while higher engaged and 'second-time repeating' students worked with increased purpose and social cohesion. This points to momentum towards objectives - found in this study as community integration, literacy development, meeting targets. This may indicate that students become gradually acclimatised to the enculturation of such methods of learning. Networks afford communities with opportunities such as ownership and personalisation, self-expression and peer co-operation as enhanced affordances, supporting interpersonal qualities (affective peer support, sharing resources) and agency becomes purposeful and enriches the student experience. However, on a broader level beyond education, a network can be perceived as a metaphor for social participation and self-responsibility. Active membership in networks represents a choice for the individual – to participate in purposeful engagement or to diverge and disengage. The strategies show negotiation paths to overcome resistance and barriers to inclusion.

12.6 Directions for Future Research

Further research would supplement a stronger understanding of the phenomenological and attitudinal barriers that inhibit engagement with online learning and which contribute to states of Social Media Fatigue in order to devise implicit methods of prevention. Further phenomenological study, framed on more focused questions to the issue, could scrutinise choices and transition experiences that students appear to hold in entering and sustaining engagement to online forms in order that enhanced affordances can be realised. Fatigue appears to be predicated on input (design) factors, such as text-load and visibility, aligned to attitudinal factors. Combined with the curriculum in question, which students find challenging, a resistance occurs that is problematic to online provision. Recommendations for practitioners have been presented to overcome these obstacles, including blending. Such interventions can ease transition and overcome disengagement but must be

based on greater understanding of the issues of fatigue, which may not be exclusive to the population and syllabus found here. Fatigue, as attitudinal ambivalence and resistance, may well be predicated on motivation and maturity and appears to be principally founded on a 'choice' by students of engage or disengage. However, the organisation of social media content may also contribute to fatigue as 'saturation', suggested by the ordering of textual-based content and subsequent notifications adding to cognitive load. Future research of specific interests would explore the push-notification as a signalling principle supporting student organisation, as a key component of choice regarding engagement or disengagement, in terms of attitudinal and agency-based responses to institutions use of the notification pervading the private world of students. Also of key interest is the impact of open publishing as assisting with confidence and literacy development.

It's highly possible that realising affordances to enhance agency is based on the existing intrinsic motivation of the most capable and confident students. For policy to support the enculturation of FELTAG objectives, the experiences of peripheral students framed in Further Education must be drawn upon to complement the best practice currently advocating the paradigm shift. Further understanding is needed of the resistance and tensions highlighted here, particularly in terms of the digital skill-sets needed for opportunity to see fruition.

Appendix 1. Example of Researcher memo, developing interpretations from communications

The teacher then interjects **My fault, actually! (For once...) I now know how to add people!**

which is to claim responsibility himself on the teething issue. He adds a self-deprecating comment (“For once...”), but since this is electronic text, the irony in the statement could be lost on the students, risking the blame for things seeming to belong to others. However, this is qualified by the following statement, which is intended to normalise these technical issues.

The student, Belinda G, continues with **I think I might be getting the hang of it now...** – an indication that her confidence in use is growing, a self-actualisation aspect of the situated space in terms of identity, and an indicator to the teacher that she is a more complete member of the community. Perhaps this is done as she cannot retract her earlier statement, recorded for open posterity and for others to see. As if in support, a student peer (and friend of Belinda outside the classroom), adds her own claim to uncertainty

think i had the same concerns but have added my comments. will we be able to see all views soon, it would be interesting to see the observation of other characters also

This appears as supportive to the exchange between student members. It’s important to point out that this is at a distinctly early stage of the implementation of the site, so this communal adaption to the technical workings of the environment – done openly – is made to seem a shared responsibility and natural issue. Remarks made later show an increased confidence and participation with the teacher’s remote questions, which are designed to support the learning process rather than *indoctrination* into the community. However, here a more capable student, one who herself has some teaching experience, realizes early the benefits of collaboration and is forward thinking and intuitive to the ends and purposes of the platform.

Another response from another student responding with the same problem underscores this category of uncertainty of use with another indicator of ‘*willingness to participate*’, but offset by a sense that it is potentially his own technical inability to access the small group that is at fault.

Cant seem to get group three? Don't know if it just me not looking properly

And once again, the vocal student with teaching experience contributes her own help, simultaneously problem-solving and supporting both peers and teacher – though yet again made as a statement directed at the teacher:

Appendix 2. Example of enhanced discourse in a cohesive community

The screenshot shows a Facebook post on an iPad. The post is titled "to Wednesday Night Class" and is dated "Jun 1, 2015". The text of the post reads: "Hey Everyone! If I don't see any of you tomorrow morning just want to wish youse all the very best of luck!!! Let's all do our best and smash this exam!! Good luck everyone x". Below the post, it indicates "12 replies" and "Liked". There are ten replies visible, each with a profile picture and text. The replies are: "Spot on mate best of luck with everything yourself kidder. Have to get together n have a pint sometime 🍺"; "I agree 🍺. I'll grab your number from you tomorrow bro. Good luck mate 🍺"; "Good luck! Don't stress out, stop stressing."; "Thanks Carly!! Haha I will try, good luck to you too!"; "streshead."; "Your He-man, you can do anything!"; "I just read your favorite place."; "Haha I am aren't i ... Thanks for the ... Let's all smash it!! ... My one? Think it was any good?"; "Yeah, very descriptive." At the bottom, there is a "Reply..." input field and a blue "Reply" button.

iPad 14:23 55%

Post Detail

M to Wednesday Night Class
Jun 1, 2015
Hey Everyone! If I don't see any of you tomorrow morning just want to wish youse all the very best of luck!!! Let's all do our best and smash this exam!! Good luck everyone x

12 replies Liked

R said on Jun 1, 2015:
Spot on mate best of luck with everything yourself kidder. Have to get together n have a pint sometime 🍺

M said on Jun 1, 2015:
I agree 🍺. I'll grab your number from you tomorrow bro. Good luck mate 🍺

C said on Jun 1, 2015:
Good luck! Don't stress out, stop stressing.

M said on Jun 1, 2015:
Thanks Carly!! Haha I will try, good luck to you too!

C said on Jun 1, 2015:
streshead.

t said on Jun 1, 2015:
Your He-man, you can do anything!


t said on Jun 1, 2015:
I just read your favorite place.

M said on Jun 1, 2015:
Haha I am aren't i ... Thanks for the ... Let's all smash it!! ... My one? Think it was any good?

t said on Jun 1, 2015:
Yeah, very descriptive.

Reply... Reply

Appendix 3 Example of sustained mobile thread

 **Becky T.** said May 2, 2015

The picture gives the impression that Nick Clegg must be a good person because he's making time for children by answering their questions.

 **Me** • May 2, 2015

great! develop your point for more marks - describe his pose and expression

 **Becky T.** said May 2, 2015

Children are the most important thing in this world to us. Nick Clegg looks relaxed with his cup of tea and interested in what the children's questions and opinions are. Therefore he comes across that he's a "people's person" and gives the impression that our children matter to him. So that would make him a good person...right?

 **Me** • May 2, 2015

Great! And, I suspect, exactly what they were trying to construct when they took the photo.

 **Me** • May 2, 2015

you might also refer to 'put on the spot' in the headline, which connotes that he was asked lots of questions by the children. This connects to the genre of the text, which is a news website for young people.



□ **Martin C.** said May 2, 2015

it engages the reader because the headline is conflicting to the image. The headline makes out that Clegg is under pressure "on the spot" but in the picture shows him in a calm and relaxed manner. this draws to reader to fully read the story to discover what is actually happening.

Also probably a bit of suggestive imaging, trying to show this is how nick clegg handles pressure, with a cool and calm attitude. Well you don't fool me Nickolas, you just lost yourself a vote!

Appendix 4 Supported writing sketches for Open Publishing



Abandoned room. The walls are almost dark because of the dirt. Only old open window gives a little light. On the floor there is a lot of dry leaves, as if they were hiding from the cold outside. I fell the damp, musty smell in the air. There is only old chair with holes ingrained in the floor. Seat is waiting for its owner, who will never come back.

Appendix 5 Questionnaire from Phase 1

Questions about Edmodo – Please feel free to answer as freely and fully as you can and return to me, either through the website (direct post to me), or via email XXXXXXXXXXXXXXXXXXXX

The purpose of this questionnaire is to explore students' use of the Edmodo network space to see how it is beneficial or not, so please explain and describe your responses as honestly as you can. If you wish to skip any questions or elaborate on anything not included feel free to add notes at the end.

The responses you give will be included in data I am collecting for a research project I am doing on the use of social software and everyone's responses will be kept anonymous and confidential. There is no intention in creating this question of assessing your answers in any way related to your college life and course progression.

Although it is anonymous, for the purposes of following up on any illuminating answers here with further questions, please do put your name onto the top of your answers.

Many thanks to anyone who can help me with this!

N.B. For the purpose of the interview the Edmodo platform will be referred to as 'the space' throughout.

Please begin by describing yourself, your educational background and what lead you to undertake the English GCSE course this year.

What were your expectations of the teaching and learning methods before the course began?

How did you regard your fellow students?

What was your opinion initially about using Edmodo in the learning process for the English GCSE course?

Has it met these expectations (if any)?

How did you use the space (i.e. on a mobile, on a home computer, on a computer in the college)?

How much involvement did you have in the space? (i.e. how often would you log on – weekly, daily, monthly, etc.)

What was good about using the space?

Did anything particularly 'good' (described above) help you with your ability to progress on the course?

What difficulties did you experience in using the space?

Did these difficulties with the space add to any difficulties you may have experienced on the course generally?

What kinds of activities do you think the space could be used better for?

How did the teacher's involvement in the space either help support your learning, or discourage your use of the space? (Please be honest!)

What put you off about using the space?

How has the space complemented and fitted (or not) with the classroom course delivery and activities?

How much involvement did you have with other students when using the space?

Did the notifications (i.e. by email or when logging onto the space) of new activity motivate or discourage you?

Do you feel it's possible to feel left behind if your own participation falls off?

Is it possible to feel confused by the content? Please describe if so (i.e. activity is too overwhelming, instructions are not explained clearly, conversation threads exclude others, etc.)

How has the use of this space for college compared to using social networks in your own personal life (like Facebook, or other)?

Can you say in any way that the use of this space has helped your learning this past year?

Appendix 6 Collaborative mobile learning task for poster design by students

A mobile-discovery learning project, students were instructed to gather information from online sources, extended to interviews and observation studies around the college on the question ‘What are some differences in ways that men and women use spoken language?’

Students worked in groups of three to assemble information synthesized from news articles, made observational analysis of video extracts using a prosodic language framework, and annotating findings into grids and charts. The students then undertook observational research around the college in different sites of people interacting as well as making Vox Pops videos and surveys. All of the resulting information was collated onto online posters with the results published openly to the network, enabling other class members to view their work. The posters were the basis for formal essay assignments, from which data could be drawn to make supporting statements and claims about the central question. An example of a first draft poster is shown below.

The image shows a mobile learning poster with the following sections:

- Assignment:** A yellow sticky note with the text "Differences between gender language Spoken language and gender." and a drawing of two heads with brains.
- Instructions:**
 - 1) Research differences between gender language
 - 2) Discuss the findings
- Evidence:** A collection of text and video clips.
 - Who Gossips more men or women?** A link to a Daily Mail article with the text: "One in 10 men like to dish the dirt on other people, compared with 4% of women, while more men than women are guilty of spreading rumours, according to the poll. Some 55% of men said they gossiped at work, compared with 40% of women whose top topics were family feuds, followed by the latest storyline in EastEnders, old school friends, fashion errors and what neighbours are like."
 - Do men talk more?** A link to a Huffington Post article with the text: "It's a Power Struggle. Some men view intimate relationships as a win-lose game. If the woman is venting her feelings, then she is winning and the man is losing. Sarcasm: Many men describe their interactions in terms of 'sarcastic' comments -- put-downs, contempt, criticism and condescension. She gets the message that he not only doesn't care -- but that he is the last person to ask for support. He thinks he's clever and funny -- and she thinks he just doesn't get it."
 - Prosodic features of spoken language:**
 - Pitch** - the variation of an individual's vocal range
 - Volume** - is used in order to enhance the meaning. We change our volume for intensity depending on the contexts.
 - Emphasis** - this is when you add stress to a word amplifying the meaning, adding emphasis to a word can change the meaning of the sentence e.g. I want to go out- I want to go out - I want to go out etc.
 - Pace** - the speed of which one talks.
 - Pauses** - a pause allows the speaker to breathe and gives listeners time to take information in.
 - Rhythm** - the flow and the pattern of your sentences.
 - Speech register features:**
 - False start** - false starts are found when speech is impulsive, (not planned) commonly occurs when the director of communication say something then 'rearranges what they say' known as shuffling.
 - Changing what they say by rephrasing a part of speech.**
 - Contrast** - is a clear specific or familiar language/conversation, rather than formal speech, written or informal.
 - Highlighting** - important part of your conversation, making the sentence stand out less harsh.
 - Pause** - intentional 'breathery' space that is required to ensure 'smooth' speech.
 - Interjections** - a word or remark expressing emotion.
 - Oh, I suppose** - 'They are not really questions but are a way of asking the other person to make a comment and to keep the conversation open. It's like 'Oh, isn't it?'
 - Form of address** - getting addressed to somebody that is close, then formalities.
 - Interjections** - Word that emphasises the sentence e.g. **Wow!** **Good**
 - Exclamation** - A strong expression in order to soften the impact of a statement.
 - Back channeling** - feedback given when someone starts to talk, to show interest, attention or willingness to keep listening.
 - F.r.i.e.n.d.s**
 - Joey** - Joey stays monotonous as he speaks to Ross
 - Monica** - Monica is over the top excited with the news Rachel has given, her volume is increased "oh my god OH MY GOD!" Monica has a fast pace but when she doesn't want them to start the conversation her rhythm changes to fast pauses between words "Do not start without me". She also uses emphasis on the "not"
 - Phoebe** - very interested into conversation and wants to know every detail. Uses a lot of back challenge and a lot of body language.
 - Ross** - Gives very simple answer without any details at all like he wouldn't care about it at all.
 - Rachel** - Changes her pitch by using a variation of her vocal range such as 'at first it was intense' and volume when talking about the kiss from excited to
 - Video Evidence:**
 - Video 1: A girl speaking. Caption: "On this interview the girl student answered all questions quite quick but with a little thought. While talking with her she kept her tone quite low and was maybe bit unsure on her answers she even admitted that she feels bad answering all three questions with same answer."
 - Video 2: A man speaking. Caption: "In this interview with adult could see a big difference between student interview because she has more confidence while answering the questions. She had a very clear answer and did not struggle in answering them. While talking you can see a lot of facial expressions interactive while she is thinking about the answers."
 - Video 3: A man speaking. Caption: "In this interview the all answers were very short and the pace of talking was quick. This occurred to not let anyone else interrupt."

Appendix 7: Example of Coding in Microsoft Word

The screenshot displays the Microsoft Word interface with a document containing several paragraphs and comments. The ribbon at the top shows the 'Font', 'Paragraph', and 'Styles' tabs. The document text is as follows:

These are excellent responses everyone - very interesting indeed. And I think I agree with all the different ideas? Do you think there is something in taking a risk that attracts people to doing things like **this**.

[Profile Picture]
[Daisy P.](#) said Sep 19, 2014

Well the risk induces a higher amount of adrenaline making it more **attractive**.

[Profile Picture]
[Martin F.](#) said Sep 20, 2014

- In my opinion I think that people climb mountains for many different reasons. One way being that they do it to get away from the stressful lives, gives them inner peace. Another reason could be that as **may** people have said it gives them freedom, happiness, excitement, rush of adrenaline or just for the passion of it. However some people may enjoy the scenery more than **The** actual climbing aspect of the hobby. **Also** they could be doing this to prove a point to themselves, being able to say that they have achieved something physical. However I believe the main reason that climbers climb is that it is there passion, sole reason for living. For instance taking the mountain from a climber is like **taking a phone from a 15 year old girl, they would go through life without purpose**, without a seance of adventure. Anyway that's my opinion **[** hope it ok. **]**

Comments on the right side of the document:

- Comment [U13]:** sustained discussion/stretch
- Comment [U14]:** Personal view informal knowledge (negotiated by teacher)
- Comment [U15]:** developing point
- Comment [U16]:** relates answer to worldview
- Comment [U17]:** uncertainty, need for confirmation/assurance
- Comment [U18]:** emoticon/ownership

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