Mobile 'comfort' zones: a conceptual model of attitudes to facilitated mobile learning in a workplace setting

Abstract:

The affordances of mobile technologies are well documented (cf Sharples, Vavolua, Wali, Cook, Pachler). Linked with the rapid expansion of the 'SMART' phones, where users access fast/high quality information, new opportunities are offered to engage students at a time/place of their own choosing. This small-scale study is located within the dominant discourse of mobile learning literature of context specific learning; it explores the attitudes and habits of trainee teachers using their own mobile devices when working full time in a school setting. We present a conceptual model for looking strategically at mobile learners in different personal/ professional contexts. This highlights the design barriers to be overcome before the full potential of mobile learning can be successful with our own students when isolated on placement and juggling busy, complex lives. Our findings indicate that students have complex/interwoven narratives that relate to issues of identity, personal/private space and their involvement in an emergent community of practice.

Keywords: Mobile learning; Comfort; Trainee Teacher; School; Workplace learning

Introduction

Research by Mobile manufacturer Ericsson (2014), shows that total smartphone subscriptions reached 1.9 billion in 2013 and are expected to grow to 5.6 billion in 2019; mobile-broadband subscriptions have grown 40 percent annually over the last three years (http://mobithinking.com); in the UK there is little difference by age in the take-up and use of mobiles – with only the over-65s out of step with the majority of the UK adult population. However, smartphone ownership differs greatly by age. Almost nine in ten (88%) of 16-24s own a smartphone, compared to 14% among those aged 65 and over (OFCOM 2014:8). Perhaps more important for education, and Universities in particular, are the attitudes that young people are entering the sector with –

> *"Whether sanctioned or not – and it increasingly is –students appear to be bringing their own technology into school, and using it for learning." (EC 2013 cited in White and Wild 2014p5)*

However, not all Higher Education Institutions have been keen to engage with emergent technologies, as documented in the 'Edgeless University' Demos report (2009). The problems of how to use technology to boost educational performance and satisfaction of both staff and students are still very much there. Indeed, one student from the Demos report comments:

> *'Technology is part of people's daily life in a university, I would say everywhere except in the classroom.'*
> (Interviewee 65 Demos 2009 p36)

The difficulties of the education system to keep pace with social developments and with the life-worlds of young people, both of which include, importantly, the shape of the media landscape are the concern of Pachler et al (2011) and their work on the affordances of mobile learning (MLearning). However, any failure to engage our students and include the use of mobile devices as part of their University studies, especially in the area of teacher training, will mean our students will not be equipped for the 21st century workplace:

> *'Understanding how social media can be leveraged for social learning is a key skill for teachers, and teacher training programs are increasingly being expected to include this skill.'* (NMC 2014:8)

White and Wild (op.cit:8) explain the gap in the learning context between school and home

> *"Students live in worlds filled with engaging technology and opportunities to pursue personal interests and motivations. Once they enter schools they have to leave behind such interests and motivations. This creates a divide between the way 'schools teach' and the way 'students learn' in informal learning environments. Teachers are nowadays facing a challenge trying to bridge this gap."*(iTEC project (2013) - 2nd Summary report of scenario development process, Appendix 3)

For Cook et al, (2010p3) it is now accepted that mobile devices have a number of important characteristics which make them attractive from an educational perspective, including increasing portability, functionality, multimedia convergence, ubiquity, personal ownership, social interactivity, context sensitivity, location awareness, connectivity and personalisation. However, this normalising of social networking in everyday life has not translated directly into better skills in a learning context (British Library & JISC 2009 p2). These findings were reflected in the work of Bradley and Holley (2011) which tracked student's mobile technology use in a five-year longitudinal study. Their work indicated that all students owned their own mobile phone, and student feedback indicated that they are keen to use their mobile phones for study. The students expected academics to be leading in assisting them to exploit the affordances of learning on the move, and this leadership was not forthcoming (op.cit). Kukulska-Hulme et al (2011 p19) suggest that mobile technologies will not necessarily be readily adopted for learning, and there are a variety of barriers to adoption. However, they also point out that, that due to the rapidly changing landscape of technological use, there is a continual need to understand learner practices and their technology adoption, and this can lead to new barriers and enablers being identified.

The study

Our small-scale study is located within the dominant discourse of mobile learning literature of context specific learning; trainee teachers have to complete university assignments while working full-time on teaching placement in schools. The trainee teachers, in a pre-placement survey, agreed/ strongly agreed with the statement '*I feel isolated from University when out on placement*'; and revealed that they did *not feel confident in their ability to engage with their study readings* and felt *pressurised by demands* of their forthcoming placement. Furthermore, a review of previous assessed work showed trainees struggled with the move from undergraduate to postgraduate study, especially in relation to theory and critique of literature. To support the students, we decided to use their mobile device of choice (their mobile phone) to scaffold discussions around key texts that were essential to their understanding. Our project used SMS text messaging with the trainees during their school placement and supported critical engagement with selected peer review journals articles. The study was funded by ESCalate, the Education Subject Centre (Holley 2011).

Four individual 'project' days were planned, during which time a '24 hour cycle' of virtual coaching would take place. Each day involved reviewing a different academic

journal article via scaffolded 'chat via text' discussion. The intention was to afford the trainee teachers to the opportunity for critical engagement with their peers and tutors at key points on their placement experience, by scaffolding the preparation of their academic work via SMS text message. The concrete 'dialogic processes' of learning within mediated situations (Laurillard 2007 p159) distinguishes two different levels of conversation: the 'discursive level' (e.g. theories, concepts) and the 'experiential level' (practices, activity, procedures). These levels bring students, teachers, learning objects and learning situations into a complex interrelationship with each other and provide a frame for combining the learning activities of the school with the media activities of everyday life. It is with enabling these kinds of dialogic debates our work is situated, via the SMS medium. Whereas other projects have focused on facilitating communication with students on placements with mobile devices (e.g. Wishart, 2011), we have focused on supporting students' academic skills, and hoped to see this reflected in their project grades. The notion of agency informed the design of our pilot, as we hoped that

> *"Intrinsic motivation can also be pedagogically enhanced by the provision of challenge and complexity as well as curiosity in the design and choice of activities and tasks that allow for agency by the user."* (Pachler et al 2010 p66)

We anticipated that agency would feed into a possible community of practice, echoing Cook et al (2011 p183) who suggest that, through the agency of users, 'the context within which communication takes place is augmented by users to suit the needs of the individual..[but for us feeds].. into the conversational community.'

Cohort description

The trainee teachers referred to in this article were all studying Information and Communication Technology for their Post Graduate Certificate in Education, a one year teacher education course designed to equip students with the knowledge and skills needed to teach a specialist subject in a UK secondary school (child age range 11-16). This cohort comprised of a total of 11, six males and 5 females, with five students entering as 'second career' participants and aged 40 – 50, and the remaining students in their early 20s. Each student has two compulsory assessed school placements. In the first semester this is supplemented by one day a week 'in university' training, and the second semester is mainly school based. The SMS management software project ran in semester two, as students had articulated their concerns about managing the expectations of preparing for, and teaching in their placement school, whilst still needing to fulfil coursework obligations for their University studies.

Methodology

We conducted a qualitative study examining students' attitudes to mobile learning as facilitated during a texting project to enhance concise and reflective academic writing. Ethical permission was sought, and granted, from the University Ethics Committee. All trainee teachers were willing to take part in the project, and provided Informed Consent. All trainees had a phone that could send and received text messages, and with the exception of a single student, their phones were SMART devices, i.e. a mobile phone that was internet enabled.

The project took place over four months, when the trainee teachers were on a school placement and would not be coming to visit the university; they have limited contact with their lecturers during this time. Each of the interventions
lasted for a 24 hour period. An essential journal article was provided as reading a week before the texting day, via the virtual learning environment used for the course.

Trainees were expected to download and read the article. A pre-project questionnaire was sent to each student, asking for details about their attitudes to, and use of mobile technologies; with 7 responding (ESCalate 2011). When the texting project was completed, all 11 students took part in a focus group, run by an independent researcher. This was video-taped and transcribed.

During the intervention, tasks were given to the trainees at three points during the day and they were expected to reply to them by the end of the 24 hour period. Some tasks involved commenting on an aspect of the reading, and others involved reflecting on others' texts. Trainees were divided into groups, and texts were forwarded to other trainees in their group. Initially, the groups were set in terms of the topic they had chosen for their assignment, but after the second session, the groups were reconfigured to contain an even mix of "keen participators". Forwarding of messages did not take place between 6pm and 8am although messages could be received; this was to ensure trainees did not feel that their out-of-work time was being overly invaded. When messages were forwarded, they would not have the originator's number so were essentially anonymised. Texting software was used to send texts to multiple participants at specified times and for the forwarding.

At the end of each intervention period, all the texts were shared with all the students to support their note-taking on the article and help them prepare for their assignment.

Response to the intervention

During each intervention, trainees were prompted, via tutor initiated SMS text messages, to complete tasks by engaging with the literature in a critical manner. Typically, the first question would be about defining terms; in Figure 1 we see students starting to engage with reflection.

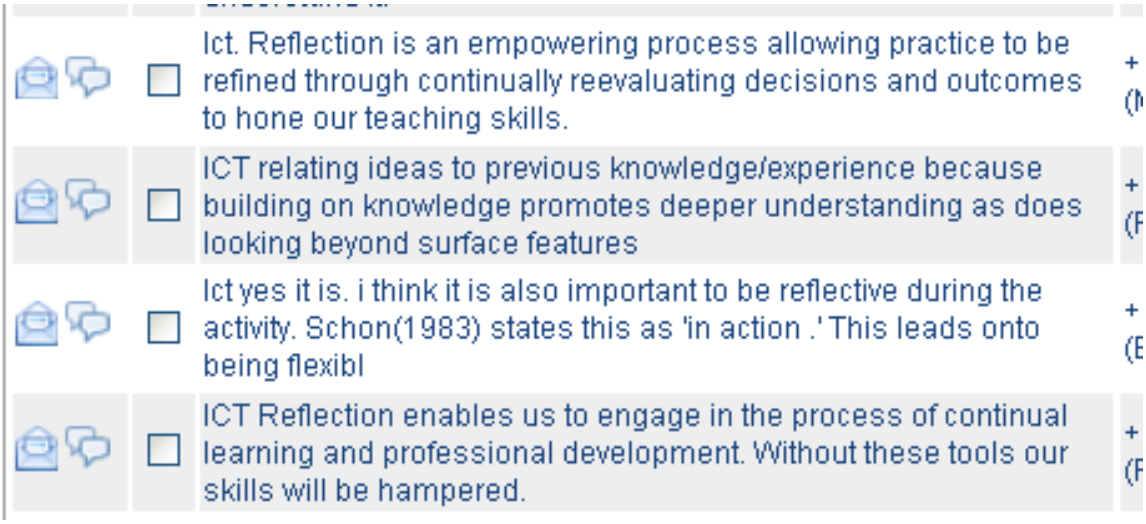

Figure 1: Student responses to the tutor question

The nature of the SMS message meant that students had to respond in a restricted number of characters. The software used to receive the texts curtailed each response when it reached 160 characters (a single text).

The number of participants varied for each session, as did the times of day that they were able to participate. However, all of the trainees participated in at least one of the four sessions, and over half of the trainees participated in all four.

	Age-group	**Gender**	**Attitude towards the experience**
Student A	41-50	Male	Unhappy
Student B	41-50	Male	Neither happy or unhappy
Student C	21-30	Female	Neither happy or unhappy
Student D	21-30	Female	Neither happy or unhappy
Student E	21-30	Male	Happy
Student F	41-50	Female	Neither happy or unhappy
Student G	21-30	Male	Happy
Student H	21-30	Male	Neither happy or unhappy
Student I	21-30	Male	Unhappy
Student J	41-50	Female	Mixed
Student K	41-50	Female	Neither happy or unhappy

Table 1: Participants in the study and their overall response to the project

As part of the focus group students were asked to indicate their overall response to the project. This was done by showing a happy, unhappy, or non-expressive face on the card in front of them during the focus group meeting. The response by each student is shown in Table 1 together with their age and gender.

Students also completed two formal written assignments which were graded; one was completed prior to the four month intervention period and one after. Their results have been linked to their engagement on the course to identify any potential relationships; the difference in grades and the amount of participation is shown in Table 2; the nature of the data and number of students means that this is purely indicative rather than an absolute measure of the success of the project. It can be seen in Table 2 that the two trainees who participated most with the project had an increase in grade in the subsequent academic assignment.

Student	**Participation (number of texts)**	**Assignment grade**	**Change from 1st assignment**
Student A	4	63%	Down
Student B	16	82%	Up
Student C	4	40%	Down
Student D	13	75%	Down
Student E	16	50%	Up
Student F	7	77%	Up
Student G	8	60%	Down
Student H	3	62%	Down
Student I	8	66%	Down
Student J	2	58%	Same
Student K	15	70%	Up

Table 2: Improvement in assignment grade and engagement (number of texts)

Initial coding of the focus group discussions (following Coffey & Atkinson 1996) identified the emergent themes of identity and appropriateness of the technology, and these can be located within the affordances of mobile technology debates discussed by Pachler et al (op.cit); the theme of personal space/ privacy and the arrival of 'work' SMS txt messages (Sentence et al 2011a); and issues of group collaboration and sharing in what one trainees referred to as 'an awkward space' (Sentence et al 2011b).

Student vignettes

This section contains vignettes from three of the students, which combines background information, responses before they embarked on the project from the questionnaire, and views given during the focus group. The three students that were selected were chosen because they illustrate a range of experiences, in terms of their overall view of the project, their engagement in it, and their views expressed in the focus group towards the technologies that we used and could have used to support the project. Students have been identified as E, I and K to preserve their anonymity; a summary of their engagement and results can be seen in Tables 1 and 2.

Student E

Student E is male, aged between 21 and 25, with a computing-related degree. He lived a considerable distance from the university during the course. He had a phone with a contract, and accessed the Internet and email from his phone. He stated that he would be lost without his mobile phone as he checked it frequently and it was an important part of his personal life. Prior to the project he did not use his mobile to help with his learning and he did not consider his phone to be an important part of his professional (teaching/academic) life – he viewed his phone as very much a personal device. Although he reported before the project that he did not find the balance between university and school life difficult to manage, he did not feel confident with academic writing and therefore he started his assignments in plenty of time.

His experience of the project

Student E participated fully and with enthusiasm with the project, giving positive feedback in the focus group discussion. He was one of the students that contributed the most, sending 16 text messages throughout the project. His final mark for the assignment was higher than his mark for the first assignment. In particular he liked being able to read other people's responses, and he used some of their ideas in his own assignment. He had said that he was not confident with academic writing, and seeing other's comments probably helped him, and he did say that the project made him start the assignment earlier than he would have started it otherwise.

He reported that he liked the "*urgency*" and "*dynamic nature of it [the project]*", because there were deadlines in which you had to contribute your text messages. He also liked being constrained by the maximum character number imposed by the the SMS management software system in sending a text message and having to think about trying to condense what he needed to say, but still "*trying to get my point made*". He did however comment that it took quite a long time to type in a text message. Overall, Student E said that he enjoyed the project and that it helped him with his assignment.

Student I

Student I is male, aged between 21 and 25, with an engineering degree. He had a contract phone, which did not have access to the Internet or email. Prior to the project he stated that he used his mobile phone to help with learning, for time management, reminders, using the calendar, and playing short games for a break. He said that he would be lost without his mobile phone and felt strongly that his phone is an important part of his professional (teaching/academic) life. He said he found the balance between university and school life very difficult to manage, he didn't feel confident with academic writing but did tend to leave any work towards assignments as late as possible. Prior to the project he commented that "*I think that texts would be good for reminding students to do things, but because my phone is kind of more of a social thing, I really resent getting 7 or 8 text messages in a row when I'm out having a pint*."

His experience of the project

Student I did not engage very much with the project, sending only 8 messages. In the focus group he indicated his view of the project by drawing an unhappy face, reflecting a negative view of the experience. He made a large number of contributions during the focus group (43). His biggest concern was that he didn't feel that responding by text message from a mobile phone was appropriate for the task, because it also involved reading an article. He did not like having to write concse responses: *".. that takes a lot of time to like make something short … you couldn't really put it in a text*". He felt that the whole process was cumbersome. He also found receiving the text messages invasive, when they arrived on his phone when he was socialising in the evening: "*me and [another student] were down the pub and we got like 8 messages, and that kind of wasn't cool, and was like invading our free time*". However, he did offer some suggestions for other technologies that could have been used. He thought it could be done via Twitter which has a similar word limit, but thought FaceBook would be better because you can set up groups and add links via URLs which can just be clicked on to access, neither of which can be done with text messaging. In the focus group he mentioned Facebook 7 times and Twitter 3 times, indicating his frustration that we had chosen an inappropriate technology. Another reason Student I gave for his lack of participation was because it was not a compulsory task – they weren't getting marks for it: "*you just do things when they're marked*".

Student I's final comment was more positive. "*I thought it came along nicely with the idea that you've got all those articles about ICT teachers using children's mobile phones, and now maybe we'll all have a better understanding of how mobile phones maybe could and maybe could not be used in education. We've seen directly how that works*."

Student K

Student K is female, over 45 years of age, with professional Computing qualifications. She has a a Pay As You Go, phone, which does have internet access, although she does not use it. Prior to the project, she used her mobile to help with learning, for taking photographs, typing in short reminders and contacting people.

She reported that she didn't check her phone frequently but that it was important part of her personal life, less so of her professional (teaching/academic) life. Student K reported that she felt very isolated from the university whilst on placement, and that she found the balance between university and school life very difficult to manage, and she tended to leave any work towards assignments as late as possible. She thought that it was important to be able to learn at any time and in any place, and before the project had a positive view of its potential to help her with her assignment.

Her experience of the project

Student K was one of the students that engaged with the project the most, sending 15 text messages throughout the project. Her final mark was higher than her mark for the first assignment, so it had a positive impact on her. However, in the focus group she described herself as neither happy nor unhappy about the project.

She commented "*I thought it was a good idea, it made me, it concentrated the mind to actually read certain literature that possibly I wouldn't have done otherwise*". She liked the fact that you were given a deadline by which you had to read the piece and send a response. She reported that the project helped her to focus on reading earlier but didn't help her with planning. However she used her SMS contributions in her final essay.

Student K's reservations about the project revolved round the timing and the technology. "*During the school day like everybody else it really didn't work for me, I was just too busy. And there were some evenings, I've got children and things, I sort of earmarked the evenings perhaps to catch up and then something disastrous would happen at home, and I'd have to do rushed answers or no answers at all, so possibly a longer period of time might help somebody in my situation*." She also experienced some problems with having an old phone and running out of memory. Finally, she found the character limit on the text messages cumbersome: "*I had to write everything out by hand and count the characters and then I'd text I in, so that was quite time consuming*". Because of the problems that she had, she would have liked the intervention to have started earlier on in the course so that they could get used to the system before they became so busy.

Findings

Whilst the three vignettes obviously reflect three individual experiences, there are some interesting points that can be drawn out. The student who was least happy with the project, Student I, felt strongly that our choice of technology was incorrect, and we could surmise that this lack of autonomy over the technology chosen had a negative effect on his whole experience of the project. His comments reflected that he felt some invasion of privacy in the communication method chosen. The other two students seemed to be open-minded about the choice of technology and the project in general prior to it commencing.

Another point to note from the vignettes is that the most enthusiastic student on the project, Student E, lacked confidence in his academic writing, and had indeed only just managed to pass the equivalent assignment the semester before. Student K also had felt isolated from the university and was keen to get the help for her assignment. This positive attitude before the intervention seemed to have an influence on how these students engaged.

After the intervention, both Student E and Student K felt that the intervention helped them with their assignment, although Student K described a variety of logistical difficulties. Student I did not, and would have liked to have used Facebook and

Twitter instead, technologies that he used already, and that he could have accessed in his own time. Student I and Student K described the same sort of logistical difficulties, but for Student I it rendered the intervention completely useless to him whereby Student K could work around these, and although not happy with them, gain some academic benefit. One possible conclusion is then that whilst different technologies do not appeal in the same way to different learners, both stressing the academic benefits and engendering an open-minded or positive attitude in the learner prior to the intervention will facilitate the greatest success.

Our findings indicate that students have complex/interwoven narratives that relate to issues of identity, personal/private space and their involvement in an emergent community of practice. Some trainees expressed their feelings about the media that they were using and its appropriateness for the tasks it had been used for, and crucial to the responses was the participants' identity as a 'student'; 'trainee teacher'; 'user' of technology and their perception of their own 'technological identity'. Issues of personal /private space emerged, and this caused discomfort to some participants, however, this was their personal space inside the classroom. We can read into the responses the underlying stresses of being in school, on unfamiliar territory and in personally challenging circumstances. The trainees, however, have got their mobile phones switched on (albeit in silent) in class to be able to see the message as it arrives; this is prohibited in schools, yet, as one student comments:

> *"you've got a mobile phone in your pocket, so they've texted you ..they expect an immediate response".*

Thus the medium is prompting a response that was not expected, or even asked for by the tutor. Three of the cohort received their messages outside the physical classroom environment, and made more strategic decisions as to how to respond, however, the arrival of the SMS still seemed to intrude upon their thoughts:

> *"whenever there were the SMS management software days, they would always be my busiest teaching day, so it would be a bit of a nightmare to get back in from the lesson and think oh I've got to respond to that, but I also need to prepare for the next lesson."*

The anxiety of assessed placement is clearly an issue, and whether in the classroom and reading the SMS straight away, or taking a more measured approach and confining the SMS activity to outside the classroom, it is still interesting to note that all the trainees still seem to display the behavior pattern of responding to an SMS text message, immediately/within a very limited time period. The trainees are all acknowledging the need to focus on academic work, and to 'juggle' their out of school (ie notionally private time) with their academic studies.

Communities of Practice

We feel that the focus of this group on particular academic tasks using SMS messages has led to an emerging community of practice for these trainees. The community created by these SMS tasks is private and exclusive. The participants all know each other. The responses are focused to a particular question, and are relevant to an assignment with a longer timescale.

> *"Just simply keeping in touch with your course mates as well which I feel was very good."*

Communities of practice are well known within education as teachers belong to overlapping communities within their school, department and subject specialism.

However trainees from a range of different backgrounds are developing as both teachers and with their academic identity. As Wenger and Snyder comment:

> *"As Communities of Practice generate knowledge, they renew themselves. They give you both the golden egg and the goose that lays them."* (Wenger & Snyder p143).

A model for profiling learners:

The themes emerging from the study offer a way of conceptualizing the learners in terms of their individual preferences/professional competences. The three main aspects with which to locate the learners can usefully offer a framework for mapping:

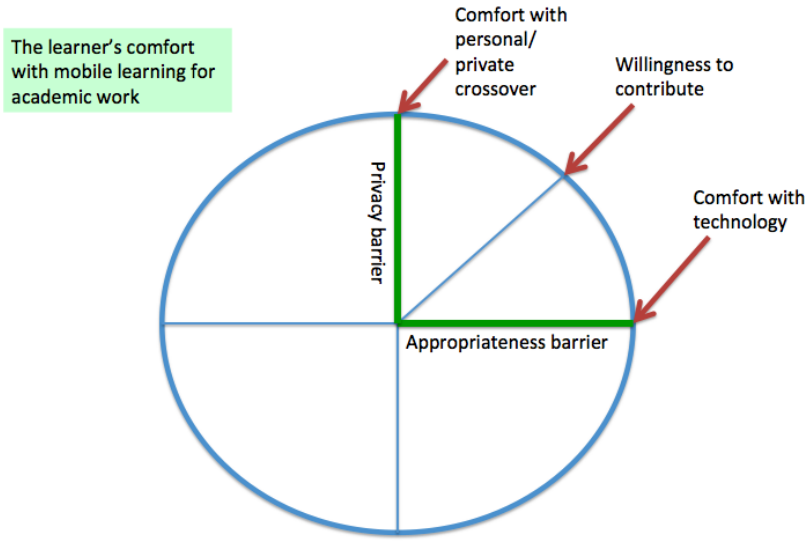

Figure 2: Conceptual model of attitudes to mobile learning

In the diagram below, students are mapped according to:

(a) their individual reported personal/academic crossover 'comfort zone' which ranges from an acceptance and embracing of the 24 hour digital world through to SMS messages only in my 'usual' working hours of 9-5

(b) Their willingness to be a contributor in an emergent group of practice from passively reading the SMS that others read to actively wanting to co-construct knowledge with their peers (via SMS)

(c) Their attitudes to technologies, ranging from willingness to experiment/ try out a new idea to rejecting a new technology (such as the mobile phone for learning purposes) in favour of more comfortable/ familiar technologies such as facebook.

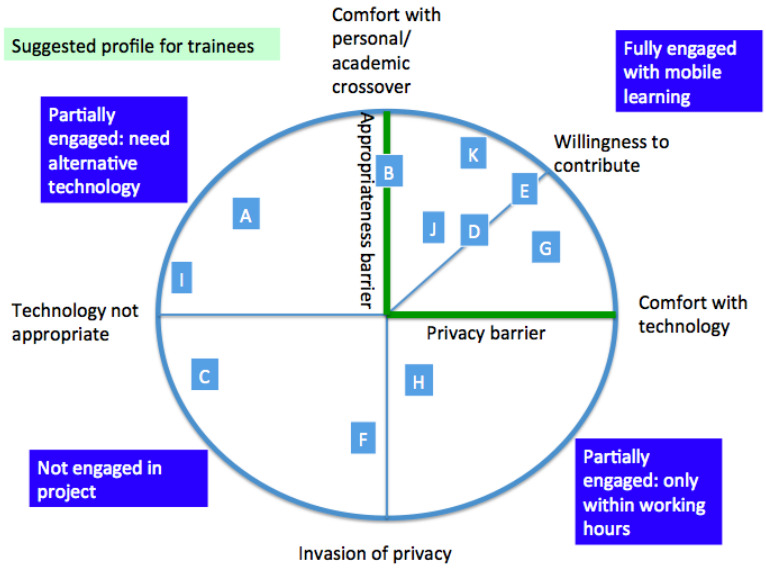

Figure 3: Populated model showing trainee barriers

Thus on the diagram we can contrast the behaviours of students K, E and B who are fully engaged with the mobile pilot and students A, I and C who only participated partially and at the periphery. This raises interesting issues in terms of agency, which Kress and Pachlar have applied to young people in school; we have adapted this notion for our analysis.

> *"Agency: young people can be seen increasingly to display a new habitus of learning in which they constantly see their life-worlds framed as both a challenge and as an environment and a potential resource for learning, in which their expertise is individually appropriated in relation to personal definitions of relevance and which world has become the curriculum populated by a mobile device users in a constant state of expectancy and contingency"* (Kress and Pachler 2007)

Discussion

In terms of identity and agency, Pachler et al (op.cit) discuss a socio-cultural ecology of social structures that relate to users' agency and to cultural practices of media use and learning; agency and cultural practices and the notion of user-generated contexts. Their work is aimed at embedding mobile devices within the school pupil curriculum; we have adapted this argument for those teaching the pupils – our trainees are in the 'space between' in that they are also learners in an unfamiliar place. They, like their pupils, they have not yet taken onboard the conventions and cultures of the school; the mobile complex…*is investigated with the purpose of positioning [in] the schools..including meaning-making in everyday life; combined with the user-generated contexts as a means of integrating meaning-making from the world outside the schools* (Cook et al op.cit p182). Thus the trainees used their mobiles as part of a wider changing socio-cultural/technological structure which embeds mobile and convergent media practice into everyday life. Having a mobile 'present' in their classroom was reported to be 'frowned upon'; however they report keeping their mobile phones on; ' in 'silent mode' – thus challenging the dominant school classroom practices; the University/student project we report on is attempting to influence their learning by drawing upon the informal (SMS texts to encourage

learning ‘in between’ the formal school and formal University spaces); and we are encouraging the co-creation of knowledge and generation of user contexts through their short SMS discussions via the mobile medium. Given the complexities of ‘identity’ as our trainee teachers endeavor to move from novice to expert in terms of their teaching practice; the need to move from undergraduate to postgraduate student and also the complex contexts within which these changes are played out (school, university, home) it is perhaps not surprising that very mixed findings are reported in Table 1.

The ‘learner gap’ posited by Pachler etc al (op.cit p84) suggesting that a learner-focused locus of control and learner agency are key in successfully bridging the gap between learning in formal and informal settings. With our small scale study we are not making any claims as to whether our model can be scaled up and utilized across platforms, will replicate with other student groups, or indeed, can be said to be typical of ‘trainee teacher’ behaviour. Despite the complaints made by the students about the inconvenience caused by receiving text messages in the classroom or at home where it was an issue because other activities took priority, it is clear some students did engage with the readings and liked the idea of collaboration and sharing when on their placement, despite the pressures of juggling work and home activities. Students B, E, F and K saw an increase in their grade compared with the previous assessment, and one individual found the process of starting to write analytically, driven by the requirements of the 160 character limit, transformed his work from borderline fail into a comfortable pass. In her interview, the course leader noted that all the trainees had cited the relevant readings, and commented that the quality of engagement with the ideas within the articles was far more critical than the trainees had demonstrated in their previous work. It must be notes, however, that system used for sending the SMS text messages did not have the functionality to be able to support the project aims fully, and this raised issues for both the students and their tutor; an ideal solution would be a combination of having SMS notification, but dialogue via something else more suitable to be able to see the thread of comments and who they were from.

Our findings indicate the use of technologies for academic purposes is an attractive proposition for trainee teachers; however, to fully achieve a new habitus of learning a shared agreement of technology was needed. We found it difficult to find a single technology that suits the needs of this diverse student group. These students were diverse in age, gender and in the technologies they were familiar with and used in their everyday life. Some said using Facebook would be better (because they used that a lot), whereas for others, this was not a good solution because they didn’t use it (the students have already set up their own Facebook group for the course, and some are already using that of their own accord). Some suggested using a combination of technologies, such as text messages and emails, or text messages and Facebook. A limitation of the study was the students selection of ‘technology of choice’: we note that the current cohort of students all have SMART phones and are much more comfortable with social media; and it is possible to use the forum feature developed by the SMS software team, informed by the technical findings of our project (ESCalate 2011; Holley and Sentance 2013) and the rapid development of ‘Apps’ offer contemporary alternatives.

Conclusions

We found the SMS project offered the trainees the immediacy of a prompt and a targeted task; a dynamic medium; and it reached the mobile device at their current location. The affordances of mobile technology in terms of not having to login and not having to visit a site to ‘see’ if something had happened were appreciated; and they were able to interface with their peers as appropriate *to their personal definitions* of

relevance (Kress and Pachler 2007). Cook et al (op.cit p193) conclude, *"by noting that the social world sets boundaries around the texts, contexts and social relations between users. However, boundaries can be – and are being contested as new technologies and new culture collide with old ones."* This study informs us of some of the barriers and boundaries framing the use of mobile devices in the school classroom. It offers some initial insights into ways in which we may start to look more strategically at mobile learners in different personal/ professional contexts, and some of the design barriers to be overcome before the full potential of mobile learning can be successful with our own students when isolated on placement and juggling busy, complex lives. The student feedback from this project has been excellent in terms of starting to fully understand what aspects of technologies students like, find useful, and can engage with is ways that are meaningful for them. The model would be useful for other professional students, such as nurses, social workers and midwifes, and it is in this interdisciplinary field that follow-up work will be located.

We would like to acknowledge the evaluation work of Claire Bradley.

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