THE MOTIVATING POWER OF SOCIAL OBLIGATION: AN INVESTIGATION INTO THE PEDAGOGICAL AFFORDANCES OF MOBILE LEARNING INTEGRATED WITH FACEBOOK

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ABSTRACT

We report on the provisional findings of an ongoing research project investigating the pedagogical affordances of mobile learning in combination with Web 2.0 tools for the learning of English for English as a Second Language (ESL) learners. Using Design Based Research (DBR) as an approach to conduct this study, this paper will first present the research that has completed so far, including preliminary results. We developed an initial design framework from the literature and tested and developed this through a series of iterations, each one focusing on particular affordances. The impact of each iteration was evaluated using interviews and qualitative data analysis. One of our findings is the impact of a sense of social obligation whereby participants feel under pressure from their peers to post and to participate. This social obligation effect can have both positive and negative consequences for learning. Our future research will focus on exploring ways in which pedagogical designs for m-learning with social networking can take this social obligation effect into account in order to avoid its negative consequences and make best use of its positive consequences.

KEYWORDS

Mobile learning (m-learning), social network, Web 2.0 tools, Design Based Research, Smart mobile devices

1. INTRODUCTION

The use of Smart mobile technology allows all the tools of Web 2.0 to be accessed anytime and anywhere. As mobile technology can be used to be integrated in teaching and learning process, educators need to understand how they can be effectively used to support various kinds of learning (Kukulska-Hulme, A and Shield, 2008) and develop effective methods and materials for learning. The teachers in the study by (Purcell & Buchanan, 2013:p50) also believe that new technologies should be incorporated into classrooms and schools, as long as they enhance the lesson plan and encourage learning. In this paper we report on a study using DBR to investigate how best to integrate the use of Smart mobile technology (Smart phones and tablets) with web-based social networking (Facebook) in the teaching and learning of English as a second or other language (TESOL) with adult students.

2. RESEARCH AIM

Reporting work in progress, this study aims to find the pedagogical affordances of mobile learning in combination with Web 2.0 tools to enhance teaching and learning and under what circumstances do the affordances work best. Other research questions of the study are to find to what extent can learning through Smartphones and Web 2.0 tools support learner interactivity and collaboration and thus provide pedagogically rich learning environments that engage and motivate learners, and if so, how? How might ESL learners be guided in getting used to the learning of English via tools of web 2.0 and Smartphones? And what are ESL learners' expectations, as they adopt the learning of English via tools of web 2.0 and Smartphones?

3. METHOD

Adopting a DBR methodology, this study involves designing, developing and evaluating a number of educational interventions for students studying English language via Smart mobile devices and Web 2.0 tools. As defined by (Wang & Hannafin, 2005: p6), DBR is "a systematic but flexible methodology aims to improve educational practices through iterative analysis, design, development, and implementation, based on collaboration among researchers and practitioners in real-world settings, and leading to contextually-sensitive design principles and theories". It involves designing interventions that are tested, evaluated, refined and adjusted (Cobb, Confrey, DiSessa, Lehrer, & Schauble, 2003) These practices reflect DBR's continuous cyclical and iterative characters, which aim to produce design principles, learning theories, interventions of curricular products, instructional tools, and or practical solutions which can be continuously refined and improved. This study is motivated by the conjecture that the language learning experience could be enhanced with the use of Smart mobile devices and Web 2.0 tools, and their integration into a tertiary education curriculum for ESL learners could promote collaborative learning among students. It also tests the conjecture that respondents' uses of the technologies are shaped by the learning activities that they are engaged in and teachers' roles are important to facilitate students' understanding. It is believed that the potentials of handheld learning environment might benefit the portability, social interactivity, connectivity and individuality of ubiquitous devices to connect students to the real and virtual world. As shown in Diagram 1, this study has three main phases. We have completed the Preliminary Phase and are now in the Prototyping Phase.

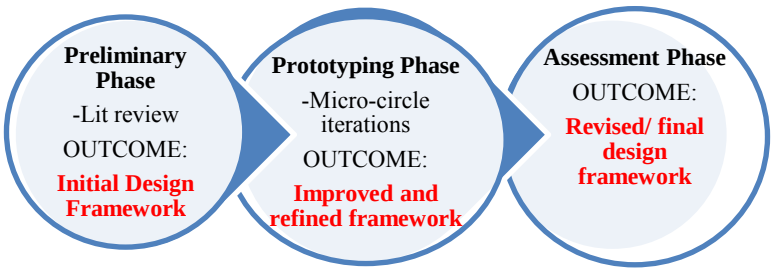

Diagram 1

The Preliminary Phase acted as a theoretical and empirical foundation of the whole study. In this stage, comprehensive review of literature was conducted to clarify the key research terms used in the research, finding the affordances of Web 2.0 and Smart mobile devices for language learning from the literature, and understanding the theoretical principles that underpin most mobile learning projects and relate them to the needs of ESL learners. The outcome for this stage was a development of an initial design framework (Design Framework 1) as shown in Diagram 2 below. Then, we tested and developed the framework through a series of three iterations, each one focussing on particular affordances in the Prototyping Phase, all done in a parallel way. Each iteration, being a micro-cycle of research with formative evaluation as the most important research activity, aimed at improving and refining the interventions to produce Design Framework 2, Design Framework 3 and Design Framework 4.

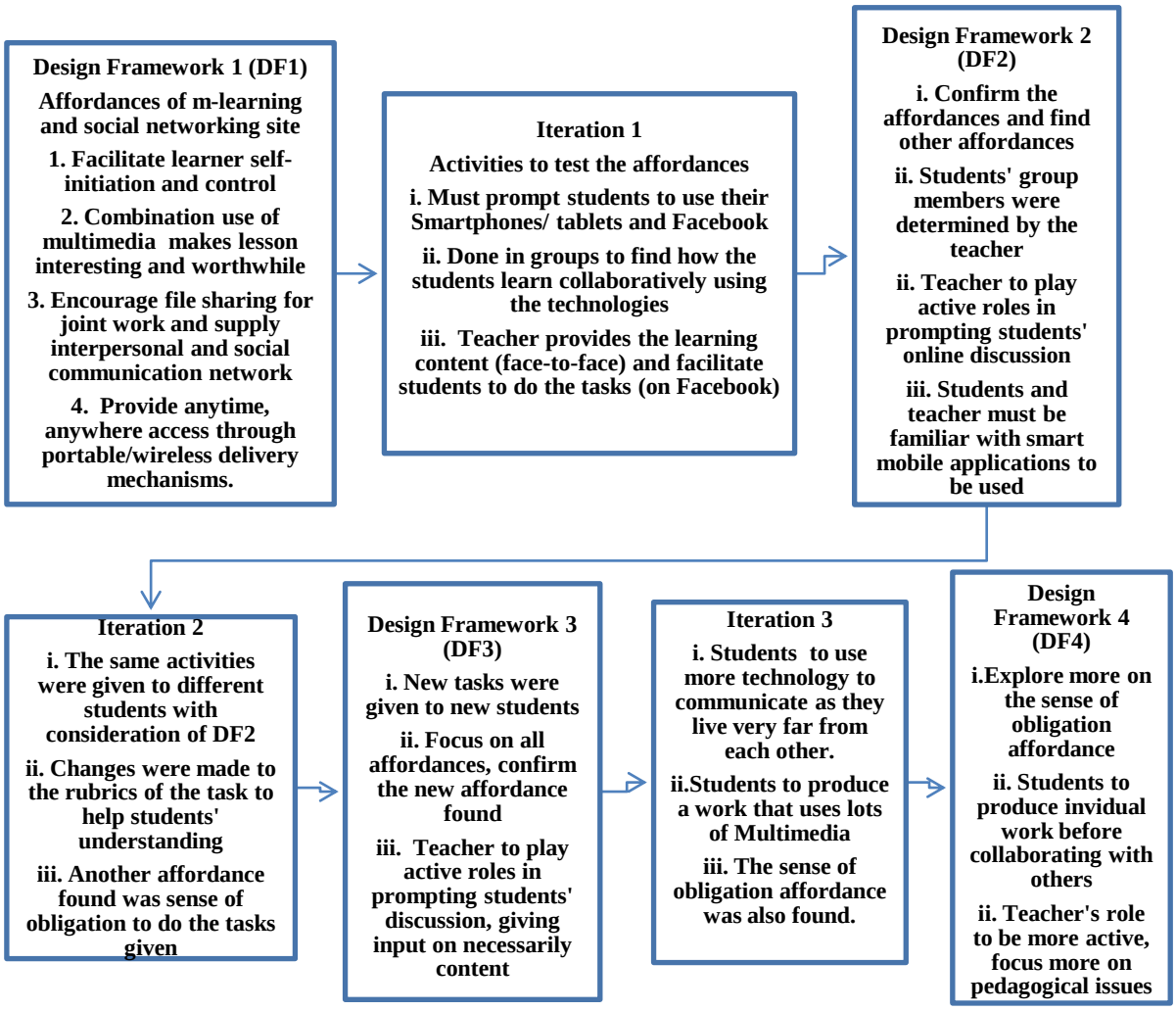

Diagram 2

To test the affordances of Smart mobile devices and Web 2.0 tools for learning in every design framework, all the tasks designed prompted the participants to use the technologies and were done in groups because this study hopes to find how they learn collaboratively using the technologies. The respondents were given tasks that required them to use their Smart mobile devices like Smartphones or tablets and the social networking site, Facebook to search for information, contact their group members to discuss and plan their work and share information for their presentation on their Facebook Group. The outcomes of students' group work were group presentations and video montages. Participants' perceptions of the impact of each intervention were evaluated using semi-structured qualitative interviews (Bryman, 2012). As shown in Diagram 2, three iterations have been conducted so far with three different groups of students participated in each iteration: 6 students participated in iteration 1, 17 students participated in iteration 2, and 7 participated in iteration 3. All of them are Malaysian students studying in University of Exeter, United Kingdom, taking various courses such as Business Studies, Engineering, Physics, and Law. These participants who range between 21 to 28 years old, volunteered to take part in this research. The findings from these interventions will feed into a further iteration to test and refine the resultant design frameworks.

4. FINDINGS AND DISCUSSION

The findings from the three iterations confirm the positive affordances of mobile learning and social networking in enhancing teaching and learning. Generally, all the respondents of this study used their Smartphones and tablets and social networking site, Facebook to do the tasks due to the affordances of the technologies as found in the literature. With the fact that the Smartphones and tablets are their personal belonging, they have a total control of when and where to do the research and discussed about it with their group mates as the devices provide anytime anywhere access through portable/wireless delivery mechanisms. Using various applications found in the gadgets, most produced a very informative, creative and interesting piece of work. Based on our observation and the students' input during the interview, all students were excited to be collaborative in their learning as they could use various kinds of multimedia in their presentations and the video montage. The uses of Facebook Groups were also found to be a suitable platform for students to share their work. The social networking site was found to supply interpersonal and social communication network between students to communicate and also promote their work. Through investigating this combination of m-learning with social networking, we have also discovered a powerful social obligation effect in the combination which needs to be investigated further. Most participants felt the obligation to post work because their work was visible to their peers. Some admitted that they were motivated to respond to the notifications received as soon as possible because they knew that they would not do it later if they procrastinated. Other than that, information finding was found to be something that can be expected from the participants to be done anytime and anywhere using their devices. Some also reported to regret for not buying tablets or advanced Smartphones as they found that other group members produced a better quality of work due to the advancement of software in their smart mobile devices.

As well as motivating, the social obligation effect can also have some negative consequences for learning. Smartphones and tablets may facilitate learner self-initiation and control to do the activities assigned but when they were expected to share their work to a bigger audience, some students were not happy. Postings that are made to Facebook Wall can be seen by anybody on the web if the settings to limit the viewing are not changed. They felt embarrassed to show their work to the public as it might reveal the mistakes that they might have done in their work. They felt pressured as they knew they were competing with other participants whom they felt might be more advanced learners. Other negative aspect of the technologies was when students felt obliged to respond to notifications that were automatically sent to their smart mobile devices. About half of the participants were uncomfortable to receive notifications about the research on their mobile phones as they experienced this as an intrusion into their social space. They reported that they changed their phone setting so that they did not receive any notification about their work on their phone. Nearly all of them admitted that they ignored the notifications because they were in the midst of doing something and there were also a number of them who felt that the notifications sent were too much. Another issue that is related to the negative affordance of the technologies was that since the work can be done anytime and anywhere, nearly all participants also admitted that they completed the work assigned at the last minute. The participants were given two weeks to do the tasks but based on their postings and discussions in their Facebook Groups, most only started to do the work at the end of the second week. This may suggest that some changes need to be done in the next design to avoid participants to produce work at last minute. Probably, the tasks designed should require the students to do them in stages before they are expected to combine and discuss their work in groups. In all the iterations that took place, the teacher created an environment where students were welcome to ask questions and discuss anything to clear any misunderstanding about the task. All the participants admitted that they found the help from the teacher sufficient. However, another negative effect of using m-learning and social networking can be seen when the participants admitted that they felt embarrassed to ask questions in their Facebook Group page. Some felt that their questions might to be too simple to be asked in public. So, rather than sharing their doubts to their groups and also their teacher, most participants chose to ask questions personally to their friends by sending personal messages through their mobile devices. Some also had face-to-face meetings. It is interesting to find in the next the iteration of how these negative aspects of m-learning and social networking can be addressed and how do different technologies and non-technology work seamlessly. Focussing more on pedagogical issues, next iterations will investigate how mobile learning teaching that incorporates the idea of social obligation should be conducted.

5. SIGNIFICANCE

The findings of this study so far suggest the importance of social obligation effect for the design of m-learning with social-networking. The outcomes from iteration 1 to 3 suggests that it is not just mobile learning but it is the integration of mobile learning and web 2.0 tools (Facebook) that leads to the social obligation effect because it involves social network and learning. As this study researches on the pedagogical affordances of mobile learning integrated with Facebook, it hopes to explain the situations where it is not good to use the technologies, when to use it, when not to use it and also how to use it for teachers. The next stage of this study will focus on exploring the motivating power of social obligation in combination with m-learning issue further. Particularly, the design for the next iteration will focus on how teachers should create a motivating and supportive online learning environment, how much notifications are just right and how much is too much and how the activities should be designed to explicitly demonstrate collaborative work among students.

6. CONCLUSION

Overall, the affordances of Smart mobile devices and Web 2.0 tools which were tested in this study confirm the conjecture on the abilities of these technologies to enhance collaborative learning of English among ESL learners. However, respondents' uses of the technologies are shaped by the learning activities that they are engaged in and this study found that teachers' roles are important to facilitate students' understanding. The findings from the iterations in this study also revealed that the integration of mobile learning and Web 2.0 tools has an effect of giving obligation to its users to respond to notifications of message that are sent to their mobile devices which can be both positive and negative for engagement and learning. The next iteration of this ongoing design-based research explores how to make the social obligation effect of combining m-learning with social networking positive for learning and how to avoid its potential negative consequences.

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