

Evaluation of challenges faced by the teachers and students of two further education institutions when using the iPad in the teaching and learning of English as a foreign language Fujairah, United Arab Emirates

Barraq Ali, EdD
University of Exeter, England, UK

Corresponding Author: Barraq Ali, E-mail: barraqali@gmail.com

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ABSTRACT

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The aim of the study was to examine the kind of challenges the teachers and students in the Foundations Program of the Fujairah Men's College and Fujairah Women's College faced in using the iPad to create tasks and activities designed to construct, support and promote the teaching and learning of English as a foreign language. The study employed a case study design. The research participants were drawn from the teachers and students of the Foundations Program at FWC & FMC. The data for this research were collected by means of two online surveys involving the Foundations Program's teachers and students, six class observations and five interviews of the teachers who conducted the classes. The study finds that the Foundations Program's teachers and students faced challenges in using the iPad to create tasks and activities designed to construct, support and promote the teaching and learning of English as a foreign language. The findings of the study will contribute to the area of TESOL and mobile learning by its focus on the rich experience of two higher education colleges using the iPad as a teaching and learning technology in classes of Arab learners and by highlighting the challenges the teachers and students at these two colleges faced in their attempt to integrate the new technology in their context.

1. Introduction

The adoption and diffusion of mobile learning in higher education is not a simple matter. It requires considerable changes in the culture of higher education institutions and that of their teachers. Traditional ways of learning and teaching are firmly established in these institutions and teachers adopt tried and tested pedagogical practices some of which are at odds with those embraced by mobile learning. To use mobile technologies effectively, teachers will have to learn new technologies and teaching methods with which they are not familiar (Kukulka-Hulme et al, 2011).

There seems to be a gap in the research into mobile learning in tertiary education. Since mobile technologies are slowly and gradually gaining ground in this sector of education, there is a need to explore the various affordances and uses of these

technologies in institutions of higher education and how to integrate them into the existing pedagogical practices and curricula of these institutions. Any investigation of the issues above will most probably also examine the various challenges that are likely to arise as a result of attempting such integration.

According to Piaget (1970), learning is galvanized by environmental situations, but only takes place when the learner actively assimilates the material. For learning to happen, the learner has to act on the content he or she receives – analysing, contemplating, applying, discussing and making sense of the material. In other words, the learner will have to construct his or her own knowledge (Piaget, 1970).

The versatility and functionalities of mobile devices facilitate the sort of assimilation described above. However, assimilation would be difficult to achieve if there was no balance between the level of challenge in an activity and the learner’s abilities and competence levels. It is not possible for a learner to interact with material that is beyond his or her cognitive abilities.

By its very nature, mobile learning promotes informal learning because it does not have to take place in the context of the classroom. Learning takes place in various contexts as students move and act in diverse environments. This is why some authors (Kuh, 1996 and Chan et al, 2006) coined the term Mobile Seamless Learning (MSL) to describe a perspective where the student can learn in a variety of scenarios and can easily and ‘seamlessly’ move from one scenario to another. This situation favours the learner who has available to him or to her many opportunities for learning. The teacher, on the other hand, can teach as well as facilitate, help and guide learners (Wong, 2012).

Of vital importance nowadays are the issues of whether mobile technologies can by themselves enhance learning and achieve outstanding outcomes. In the rush to adopt these technologies because of their impressive affordances, there is the danger that linking them “to methodologies, practices and pedagogic mediation processes designed with the understanding of the nature and specific learning applications of those technologies” is neglected (Ferreira, 2013, p. 70). Without such linkage, these technologies might prove to be unsuitable for the learning environment for which they are intended (Ferreira et al, 2013).

2. Literature Review

Mobile Technology Challenges

Mobile technologies are not without their own challenges. One such challenge is the high cost of accessing data and ease of access. This is evident in many developing countries making it less viable to use these technologies for educational purposes. The interface limitations of mobile devices are another challenge. Since these technology tools were not intended for educational use, the reduced screen and keyboard size of many mobile phones, for instance, makes it difficult to read and/or create text in them. Neither do they support well learning activities based on animations and sounds because of interface limitations. Furthermore, mobile technologies can quickly become obsolete tempting the user to exchange the old for the new.

This is costly and requires user time to learn the new device. Maintenance costs are another factor to be considered. Since they are portable, users run the risks of loss, robbery and destruction of these devices.

The use of mobile technologies has generated other issues relating to personal comfort, social conduct and privacy. These have to be confronted and discussed in order to maintain the effectiveness of mobile learning. The reduction in the learner's personal comfort when using a mobile device could impair learning. The use of these tools and the interruptions they cause can be regarded as offensive and disrespectful in certain contexts. Moreover, receiving data and messages constantly can generate anxiety and a sense of urgency resulting in increased stress for the user. Increased learner stress means reduced quality of the learning itself (Ting, 2005).

iPad in Schools

The Institute of Education, University of London, has produced a report entitled *What the research says: iPads in the Classroom* compiled by Wilma Clark and Rosemary Luckin. The report is based on "a review of the literature, including newspaper reports and blog posts as well as academic and corporate research papers" (Clark & Luckin, 2013, p. 2).

It focuses on the use of iPads in schools partly because this is where most of the current research on tablet devices is to be found and partly because the lesson learned from studying the use of the iPad in these schools will be applicable to other tablets and their use in education.

The report starts by acknowledging that the use of tablets and other mobile devices in education is a hot trend for technology adoption in schools in 2013. However, such an adoption has not been without its controversies - pedagogical, technical, social or economic. This is to be expected since schools and classrooms are complex systems and, therefore, any attempt to integrate technology in them requires an approach that takes into account the potential impact of such integration on technical, social and economic infrastructures. The authors of the review believe that the successful adoption, use and integration of tablets depends on the relevant stakeholders' understanding of not only the key features of these devices, but also, and more importantly, on their ability to identify whether and how these devices might be suitable to the needs of their schools and the wider school community. In compiling the report, the authors hope that they can help stakeholders in that process.

The report cites a survey conducted by Longfield Academy (2013) in Kent as part of the school's iPad initiative. Students, teachers and parents took part in the survey. The students were emphatic that the iPad had made possible for them what could not have been done easily without it such as "easy internet access, use of iBooks, access to translation tools, easy access to educational games and apps to support learning, routine access to tools that support reflection" (Clark & Luckin, 2013, p. 9).

The focus of the report above is on schools partly because iPads are being adopted in a large number of them. As a result, most current research on tablets concentrates on efforts by these schools to integrate the iPad and other tablets in their existing system.

iPad Portability

The iPad shares this affordance with laptops, personal digital assistants (PDAs) and smart phones. However, the iPad is smaller and lighter than a laptop, but larger than a PDA and smart phone. The larger screen with the higher resolution makes the iPad better suited for collaborative and group work than smart phones and PDAs. It can easily be passed around by groups of students working at tables. Furthermore, learners can comfortably use their iPads in their fieldwork. If it is connected to the Internet, the iPad can be used to access references on the fly, transport documents and e-books, take photos and create videos. There is no need for a mouse and a separate keyboard. The iPad touch screen is designed to replace the functions of both of these accessories (Johnson et al., 2010; Vollmer, 2010; Wembler, 2010 as cited by Falloon & Melhuish, 2010).

iPad & Personalised Learning

Research has shown that personalized access and individual ownership are two important factors that contribute to the iPad being an effective learning tool. The technology allows learners to supplement their learning not only outside the classroom, but also inside it. As their teacher speaks, they can carry out a web-based inquiry, write digital notes and download apps that will help them learn the subject matter discussed in class (Henderson & Yeow, 2012).

However, the iPad is not the only technology that enables the learners to supplement their learning. Other technologies such as personal computers and laptops that have access to online resources and have word-processing and note-taking functions also allow learners to do the same. Still, the advantage of the iPad is the ease with which apps can be downloaded and some are free. In contrast, downloading software on a PC or laptop is not free and often costly.

To further illustrate the element of personalization, a shared iPad project was carried out in a Norwegian primary school where the students were allowed to take possession of the iPad on a temporary basis. They were told they could personalize the device adding the apps they wanted. The researchers, who wanted to know what kind of apps the students had independently selected, collected the iPads. They found one student who had organized his apps into thematic groups and had downloaded free apps that supported text-to-speech. Having observed the student and had a discussion with his class teacher, they discovered that the student had reading difficulties and because of these difficulties, he had chosen apps that would provide him with a useful assistive technology for his special needs. If he had had only a desktop computer, it would have been more difficult for him to obtain such specialist software that is typically expensive and requires technical expertise to install (Gasparini, 2011).

Although the project described above was carried out in a primary school setting, it is not difficult to imagine that the same or similar situations occurring in a higher education institution where learners' needs are as varied and sometimes special as they are at lower levels of education. Moreover, the manner in which my students personalize their iPads by grouping various apps in categories such as e-books, college portals, games, quizzes, etc., provides further evidence as to the personal nature of the technology.

It is clear from the above example that learners can tailor their applications to suit their specific goals and purposes. However, for applications to play this role they have to be pedagogically sound in their design and they have to foster interaction that is grounded in M-Learning theory, which is still developing. Furthermore, teachers and students have to work together to ensure that the students learn what they need to learn. This means that teachers and learners have to understand how certain affordances and applications can be utilized to meet students' needs (Falloon & Melhuish, 2010).

3. Methodology

3.1 Sampling

Perry (2011) states, "The sample is the source from which data are drawn to answer the research question(s) and/or to test any hypothesis that might be made." He goes on to stress that the sample is "one of the foundation stones on which the study is evaluated regarding its usefulness". The study employed two sampling techniques; cluster sampling for the students and convenience sampling for the teachers. When the population is large and widely dispersed (the Foundations Program students in 17 Higher Colleges of Technology dotted around the country), cluster sampling seems the appropriate strategy to adopt. It would have been very time consuming to select all the Foundations Program students in the HCT system to survey for the research. As a result, I selected the two Fujairah colleges where I work and which are geographically close to each other. In this kind of sampling the researcher has to ensure that bias is not built in. In this study there may be similarities within the Fujairah cluster sample that do not catch the variability of the wider population (HCT-wide Foundation Program students). To avoid this risk, the researcher will do better "to take several clusters and to sample lightly within each cluster, rather than to take fewer clusters and sample heavily within each".

3.2 Data Collection Instruments

The data for this research were collected by means of two online surveys involving the Foundations Program's teachers and students, six class observations and five interviews of the teachers who conducted the classes.

Having collected data using the instruments described above, I was advised by my supervisor to collect further data. The aim was to further enrich the findings of the study. I, therefore, posed two additional questions to five Foundations teachers and ten Foundations students chosen at random from among the Foundations Program teachers and students at both colleges. The five students chosen from each college came from the four levels (1, 2, 3 & 4) of the Foundations Program.

3.3 Research participants

The research participants were drawn from the teachers and students of the Foundations Program at FWC & FMC who had been using the iPad's technical affordances to create pedagogical affordances in order to enhance their teaching and learning of English as a foreign language. Twenty-eight teachers received the teacher survey, but only fourteen (14) responded. The student survey was sent to 578 students (FMC = 89 and FWC = 491) and out of these a hundred and ninety-four (194)

responded. Five teachers conducted six classes, which I observed, and the five teachers were interviewed after the observations. One of them had delivered two classes.

3.4 Validity and Reliability

According to Cohen et al (2009), validity was defined in the past as “a demonstration that a particular instrument in fact measures what it purports to measure” (Cohen et al 2009, p. 133). For this study five Foundations Program teachers were chosen to participate by having their classes observed and by giving interviews in which they discussed these classes and the use of the iPad in them. The choice of these teachers has enhanced the validity of the study because they were heavily involved in designing and teaching the Foundations Program classes in which the new technology – the iPad – was the main pedagogical tool. Furthermore, these participants had received intensive training and orientation whose objective was to familiarize them with the iPad, its apps and the pedagogical strategies that were intended to promote their teaching using the technology. To back up their iPad training, these teachers used their academic training and extensive teaching experience to design and conduct their classes and their analytical skills to reflect and look deeply into their use of the new technology in their existing environment. As a result, their classes yielded rich and in-depth data on the use of the iPad and their interviews valuable critiques of these classes, the new technology and useful insights into the iPad initiative.

4. Results and Discussion

Results

Challenges

The insights into the challenges faced by the Foundations Program teachers and students came from the teachers who were interviewed for the research.

Students’ Linguistic & Technical Literacies

Teachers at all levels of the Foundations Program face various challenges using the iPad in their classrooms. These challenges vary depending on the linguistic and technical competencies of the learners using the technology. In general, teachers at lower levels of the Program (pre-foundations and level 1 classes) had greater challenges to overcome than those faced by teachers of higher levels (level 2, 3 & 4). Dealing with students who are lacking both solid linguistic and technical foundations, these teachers had to play the double role of English teacher and technical troubleshooter and come up with strategies and ways to overcome difficulties.

The picture is slightly different at the higher levels of the Foundations Program. Thanks to their better English and better technical knowledge, the students at these levels did not need the same intensive level of guidance and feedback that was needed by their colleagues at the lower levels. In fact, on occasions the teacher was freed from the responsibility of giving

such feedback because the students with better linguistic and technical skills helped their fellow students who did not have the same skills and expertise.

The above was born out by the teachers' interviews and the fact that students with poor English skills were placed in pre-foundations classes – lower than Foundations Level 1 – and others were placed in the other four levels of the Foundations Program: 1, 2, 3 and 4. This placement was done on the basis of their CEPA scores. Those who scored 149 points and lower on that test were placed in pre-foundations classes while those who scored between 150 and 179 points were placed at the other four levels of the Program. Anyone with a score of 180 points and above went straight to the Bachelor's program.

Two of the teachers interviewed illustrated the teacher's double role at lower levels when they stated that in addition to the task of teaching English grammar, vocabulary, reading, writing, speaking and listening, they spent a lot of time teaching the students how to use the iPad.

TEACHER 1 found it particularly frustrating having to spend considerable amount of class time dealing with iPad problems and not enough time on teaching the language. She claimed that for the majority of his/her students in that group (pre-foundations) it was the first time they were using these particular apps. Although step-by-step instructions of how to use them had been given to them, they did not understand these instructions because of their poor English, so he/she had to explain the instructions. She added that she was wrong in making the assumption that because of their young age, these learners would have no difficulty using the new technology. He/she also believed that it was difficult to teach learners how to use a new technology in a language other than their mother tongue.

This teacher went on to express his/her belief that had the students' English been better, many of the technical problems they faced would not have arisen. She, therefore, stated that in the future she would not work under the assumption that because the students were young, they would be technically knowledgeable and would feel at home using classroom technology.

TEACHER 2 painted a similar picture of the disparities in the students' linguistic and technical competencies. In a class of weak students, he/she stated that it would sometimes take him/her 50 minutes – an entire class period – to get his/her students to set their iPads for the lesson. Their failure to follow “even the basic iPad set up instructions” was due to their poor English. In contrast, higher-level students with better English would take no more than 10 minutes to complete the same set up task.

It is worth noting that there is nowhere in the literature review for this study a description of a situation similar to the one described above where teachers play the added role of a support technician. In this the Foundations Program in the Fujairah colleges and other campuses of the Higher Colleges of Technology is rather unique. This is partly due to the fact that the learners who use their iPad are L2 speakers whose English is generally very poor and whose knowledge of mobile technologies such as the iPad and smart phones does not extend to using these technologies for educational purposes.

Speedy Launch

The discussion of the speed in which the iPad initiative was launched is relevant to this study for two reasons. First, it shows how the teachers involved in the initiative felt about the speed in which this important project was implemented. Second, it provides an insight into the circumstances surrounding the launch of the new technology.

TEACHER 1 was the only interviewee who discussed the speed in which the iPad was rolled out in the Foundations Program of the Fujairah colleges. He/She thought there had not been enough groundwork to prepare for the launch and that the integration of the iPad could have been done over a period of six to twelve months. The fact that it was carried out in two months had put considerable pressure on students, teachers, supervisors and administrators who had to adapt quickly. In his/her opinion, the expectations were rather unrealistic. It would have been interesting to learn of what the other participant teachers thought of the speed in which the iPad had been introduced. However, that was not one of the topics that were discussed in the interviews for this study.

Discussion

Challenges

The teachers and students of the Foundations Program at the two Fujairah colleges faced several challenges when the iPad was introduced to their academic and professional context. Some of these challenges were technical in nature relating to the functions, set up and operation of the new technology while others were of an administrative and academic nature.

Teaching mixed abilities classes is not an easy task. This task is sometimes made more complicated by the introduction of a new technology. When this happens, the class teacher finds herself in a situation where she has to play a double role: English teacher and technology trainer. She has to teach the language skills, but at the same time she has to provide guidance to the weaker students, who find it hard to follow technical instructions on how to use the new technology. As a result, these students progress at a slower pace than their more linguistically capable classmates, and class teachers are likely to feel the extra pressure put on them as well as to experience varying degrees of frustration and even resentment. Moreover, having to spend valuable class time trying to resolve technical issues and iron out technical glitches is bound to adversely affect teachers' morale and dampen their enthusiasm for creative work.

Interviewing teachers for this study, the question of the teacher's double role was raised in the first interview with TEACHER 1 who complained of having to focus on two areas when teaching pre-foundations classes. There is no situation in the literature that I have reviewed similar to the one described above. However, there are two issues TEACHER 1 raised in the interview that are echoed in the literature on the subject. These are the iPad's reduced screen size and the difficulty of using the iPad keyboard for typing lengthy texts. Ting (2005) argues that since mobile devices such as the iPad were not intended for educational use, they suffer from 'interface limitations' such as reduced screen and keyboard size, which makes it difficult to read and/or to create text in them. This is especially true of many mobile phones, but it can be a challenge when using the iPad, too. Ting lists a number of other limitations, which have not been discussed in the current study.

5. Conclusion

The study highlights the challenges both the Foundations Program's teachers and students faced when using the iPad for teaching and learning. In general, the teachers found that the students' weaker language skills a factor in slowing down learning at the lower levels of the program. In contrast, the students at the higher level found it relatively easier to adapt to the new technology and use it to enhance their learning. Their stronger language skills helped eliminate some of the difficulties the teachers at lower levels faced in teaching weaker students.

Another issue the research has underlined is the speed with which the iPad was introduced to the Foundations Program. Although no effort was spared to prepare the teachers to receive the new technology in the few months that preceded the launch, there was simply not enough time to achieve full preparation nor to diagnose some issues that arose later and posed difficulties for all those involved in the iPad initiative.

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