

## **MOBILE LEARNING: ENHANCING LEARNING THROUGH CELL PHONES**

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### **ABSTRACT**

The use of mobile devices in education all over the world is increasing. These mobile devices, such as laptop computers and cell phones, are revolutionizing education and transforming traditional classroom-based learning and teaching into anytime and anywhere education. Even though, most educators, and parents, have been doubtful about the value of mobile devices as a resource for learning. This paper presented a literature review about mobile learning with particular reference to how learning can be enhanced through the use of cell phones. The researcher provided an overview of the topic, followed by a rationale for choosing the topic. The definition of mobile learning is then discussed, and its unique aspects were presented. As the main focus of this paper is enhancing learning through cell phones, the definition of a cell phone and how it can enhance learning was explored. The paper suggested some applications of how cell phones can support learning in general and in the Omani context in particular. Furthermore, the researcher shed light on advantages and disadvantages of cell-phone learning. To summarize the discussion, the paper provided a short conclusion.

**KEYWORDS:** Cell Phones, Communication, Learning, Mobile Devices, Omani Learners, Technology

### **INTRODUCTION**

Mobile media enables a multiplicity of place that presents opportunities and challenges to learning and education. The use of cell phones and other similar mobile devices is beginning to impact how learning occurs in several contexts. Learners who are not reliant on access to computers can engage in some activities that are relevant more closely to their current surroundings, sometimes crossing the border between formal (in the classroom) and informal learning (outside of the classroom). This leads to the creation of the potential for significant change in teaching and learning practices (Kukulska, 2009). Some believe that mobile learning is becoming more important and that it will play a vital role in the fast growing e-learning market (Wang, Wu, Yuan, 2009). This indicates that technology has succeeded in creating a personalized environment that makes it possible for each student to pursue his or her areas of interest (Squire, 2009).

Cell phones have significantly contributed to technology-supported learning. They are well aligned with strategic educational goals such as improving student achievement and supporting differentiation of learning needs and interests. Cell phones enable learning to connect to real-world experiments more directly (Kukulska, 2009). Many studies have shown that cell phones can be useful tools for delivering foreign language learning materials to students (Thornton & House, 2005). Kolb (2008) also recommended, "Finding useful ways to integrate these devices as knowledge construction, data collection, and collaborative communication tools" (p. 9).

### **RATIONALE**

Recently, there have been numerous studies and projects using mobile technologies for Learning (Kim, 2008). Kukulska (2009, p.160) stated that "within the classroom, it has been shown that mobile devices, with appropriate programs,

can be highly effective in supporting collaborative group learning, improving on what was possible to achieve without these tools." Cell phones are very popular mobile devices to be used for communication among Omani learners from different levels and particularly among students in Post Basic Education schools. The researcher is attempting to explore the topic of mobile learning to find out how cell phones can efficiently enhance language learning to make an efficient use of them in learning in future.

### **WHAT IS MOBILE LEARNING?**

Mobile learning refers to the delivery of learning to students anytime and anywhere through the use of wireless Internet and mobile devices, including cell phones, personal digital assistants, smart phones and digital audio players. That is to say; mobile learning users can interact with educational resources when away from their normal place of learning. (Wang et al. 2009, p. 93). Cavus and Ibrahim (2008) defined mobile learning as learning that occurs with the help of portable electronic tools. Mobile learning is also defined as learning that happens on any pervasive computing device. Therefore, mobile learning includes portable technologies and mobile contexts in a mobile-learning society (Jeng, Wu, Huang, Tan, Yang, 2010). According to Croop (2008), mobile learning is sometimes referred to as m-learning. It is learning supported by access to requisite information repositories and/or communication with potential learning collaborators that occurs in a location and at a time that makes a learning activity either possible or more productive than would be achievable at another place and/or time.

### **WHAT MAKES MOBILE LEARNING UNIQUE?**

Mobile technologies with portability, connectivity, and adaptability enable learning to be comprehensive inside and outside of classrooms, provide potential opportunities for collaborative learning and provide rich learning experiences with the support of technologies (Ilooi, Seow, Zhang, Jeong So, Wong, 2010). Squire (2009) argued that mobile learning allows for the personalization of learning, in which learners have ubiquitous access to information both inside and outside of school driven by their interests and needs. Similarly, Zhang (2008) noted that through mobile learning, students have the freedom to learn within a learning environment that offers adaptability to their individual needs and learning styles and the flexibility of pervasive and unobtrusive computer systems.

Moreover, the self-management of learning was also found to play a critical role in m-learning acceptance. That is, an individual with a highly autonomous learning ability will be more likely to use m-learning than a person with a lower independent learning ability (Wang et al., 2009). However, m-learning can develop learners' autonomy.

### **CELL PHONES AS MOBILE DEVICES**

Anyone who becomes involved in mobile learning will quickly notice that in the present, it matters which devices students are using. First, ownership of the equipment makes a difference because a tool that has only been borrowed may not be used in the same way as one that is owned. Second, some particular mobile devices have strong associations with specific realms of activity (Anonymous, 2007). Cell phones are appropriate mobile-learning devices because most learners own one and because they have many useful functions that can make learning enjoyable. Thus, what is a cell phone?

As Croop (2008) stated, the term "cell phone" is short for cellular phone; these are often also referred to as mobile phones. It is a wireless telephone that uses radio waves to connect to a radio antenna that provides telecommunication within a small geographic range called a cell (Croop, 2008, p. 12). Cell phones vary, and some have more multimedia

capabilities than others. For example, most phones can run small Java programs, some phones can display Flash animations or electronic books, some include digital voice recorders and small video cameras, and some can display and record TV broadcasts (Thornton, 2009). Looi (2008) noted that cell phones are used not only for making calls but also for taking pictures and uploading them to the social media website, creating mobile blogs or accessing the web on the move. The use of these mobile technologies facilitates not only communication, but also collaboration, and learning in informal settings with peers, friends, and family unrestrained by time and location. Cell phones also usually have SMS, MMS and MP3-player and games. They may also include an organizer, web browser, navigation tool, personal identification tools, and payment tools and so on; the list continues to expand as time passes (Pachler, 2010). “For many students today, mobile phones have become an important way to keep in touch with friends” (Kiernan & Aizawa, 2004, p. 71). Therefore, Cavus & Ibrahim (2008) emphasized that the widespread use of mobile phones among students has led us to take into account how this technology might help us to improve the motivation of students and help in teaching and learning.

## ENHANCING LEARNING THROUGH CELL PHONES

One of the fundamental challenges for 21<sup>st</sup>-century learners is not only what they learn but how and when they learn as well. It is essential to understand more deeply about how students learn informally and use that understanding to inform formal and informal learning practices (Looi et al., 2010). Cavus and Ibrahim (2008) stated that “informal learning can happen anywhere and anytime” (p. 80). Squire (2009) noted that the choices mentioned previously in cell phones could lead to a deep personalization of learning, and thus, cell phones will be the first multimedia networked computer technology to reach one-to-one penetration.

Notably, one of the first projects using cell phones in language learning was developed by the Stanford Learning Lab. Specifically; they developed Spanish study programs using both voice and email with cell phones. These programs included vocabulary practice, quizzes, word and phrase translations and live access to tutors. Their results proved that mobile phones were valid for quiz delivery in small chunks; they also stated that automated voice vocabulary lessons and quizzes had great potential (Chinnery, 2006).

A study by Croop (2008) declared that 80% of the respondents indicated that they would like the option of doing class activities through mobile learning. Furthermore, in a study that involved Japanese freshman engineering majors and aimed to determine if cell phones are useful language-learning tools, Kiernan and Aizwa (2004) discovered that designing certain tasks to be learned through cell phones encouraged students to develop their reading skills and vocabulary use. Al-Mamari also conducted a study to find out the effect of mobile learning technologies on students’ listening skills in higher education in the Sultanate of Oman. He discovered that cell phones were effective at improving learners’ English listening skills and that students showed a strong positive attitude toward learning listening skills with cell phones.

Wang et al. (2009) argued that cell phones can provide game-based learning systems capable of providing challenges that are closely matched to learners’ knowledge levels and content that can fit students’ needs exactly and will consequently highly motivate them.

## APPLICATIONS OF CELL PHONE LEARNING IN THE OMANI CONTEXT

Because Omani learners commonly use cell phones, they can be encouraged to use them to enhance their learning. For example, learners can download literary texts, dictionaries, audio books that allow them to listen to texts in English or foreign-language podcasts whenever or wherever they want. Furthermore, they can expose themselves to texts in English

as much as they want. As Hartnell and Heym (2008) suggested, students also can use cell phones for many purposes such as photography, Bluetoothing project material between group members, receiving SMSs and email reminders from teachers. They can also use them for synchronizing calendars and timetables, setting reminders, connecting remotely to school learning platforms, recording readings from teachers and accessing revision sites on the Internet.

### **ADAVNTAGES OF CELL PHONE LEARNING**

Recent research concerning the learning indicates that the retention of a new term or concept depends on the quality and frequency of the information-processing activities. For learners, this means that students need to encounter and notice words in speaking, reading, writing and listening tasks and then deliberately practice or rehearse them to facilitate the formation of a lasting memory. Enough exposure, activation and recognition can help this process to become relatively automatic, which is one of the goals of foreign language learning. However, in many educational institutions around the world, the amount of class time is very limited. Therefore, cell phones can help extend learner opportunities in meaningful ways (Thornton, 2005).

Moreover, the standard features of these devices, including Internet access, voice messaging, SMS text messaging, cameras and video recording, can enable communicative language practice, access to authentic content and task completion (Chinnery, 2006). Besides, cell-phone learning allows students and teachers to use their spare time while traveling to finish their homework or lesson preparation. It also provides seamless learning spaces and continuity of learning experiences across different scenarios or contexts (Wang, Shen, Novak, Pan, 2009). Cell phones can easily connect to the Internet, and the ability to browse the web makes such devices useful in a learning context (Pachler, 2010).

According to Wang et al. (2009), teachers can monitor students' learning progress, as students can send text messages to teachers, who can then reply by giving feedback through short text messages. Additionally, In addition, more people own cell phones than laptop or desktop computers, which imply that cell phones are more economical than computers, not only in price but also concerning power consumption.

### **DISADVANTAGES OF CELL PHONE LEARNING**

Some challenges exist for cell-phone learning. One of these challenges is that cell phones take learning out of the classroom, often beyond the reach of the teacher. This can be perceived as a threat, so the challenge is to develop a design that clearly identifies what is best learned in the classroom, what should be learned outside of the classroom and the ways in which connections between these settings can be made.

Another challenge is small screen size, small font, a short battery life, speaker quality and the limited number of outgoing email messages. However, these limitations are gradually disappearing with advances in mobile phone screens, processors, bandwidth, and memory.

Besides, some learners prefer face-to-face interaction when studying, which reduces their acceptance of cell phone teaching (Thornton, 2005). Other challenges are related to students' as well is the misuse of cell phones. Some learners, as Kiernan and Aizawa (2004) indicated have apparently been caught using text messaging functions to communicate with each other during class time, and even attempting to cheat during tests. Technical issues ranging from network access and security, data protection can be considered as another challenge (Hartnell & Heym, 2008).

## CONCLUSIONS

Educational technology is changing the old philosophy of learning in which the teacher is the sage on the stage to another one that considers the learner to be the leader of his learning. Therefore, educators and students must try to work together to understand how portable, wireless technologies may best be used for learning. Teachers' pedagogical expertise will continue to have an essential role, but it needs to be re-investigated to address the particular qualities of mobile learning. Cell phone learning is a kind of mobile learning that already exists among our learners and that why we need to develop new views of how learning can be positively supported and improved through these mobile devices.

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