THE USE OF EDMODO, VIRTUAL LEARNING MANAGEMENT PLATFORM, IN THE CONTEXT OF PROMOTING MOBILE LEARNING

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Abstract. *This paper discusses different approaches to mobile learning or m-learning, and it also gives a brief overview of Edmodo-a virtual learning management system. Additionally, it focuses on Edmodo's characteristics, features and functions to provide a better understanding of how teachers can deploy Edmodo as a virtual class organizer and as a tool to support their students, promote their independent learning and diversify their learning opportunities outside the classroom.*

Key words: *mobile learning, virtual classroom, course management, 21ˢᵗ century learners*

1. INTRODUCTION

The word 'mobile' in the collocation 'mobile learning' explicitly suggests that this is a type of learning not limited to a fixed place and moment of time. It also has two implications: learner mobility and mobile devices (Mobile learning, n.d.). O'Malley, Vavoula, Glew, Taylor, Sharples and Lefrere (2003, as cited in Savill-Smith et al., 2006) consider mobile learning "a sort of learning that happens when the learner is not at a fixed, predetermined location, or learning that happens when the learner takes advantage of the learning opportunities offered by mobile technologies" (p.2). Litchfield, Dyson, Lawrence and Zmijevska (2007) define m-learning as "facilitation of learning and access to educational materials for students using mobile devices via a wireless medium" (p.589). The literature on mobile learning is full of different definitions and interpretations of the term. However, there seems to be common agreement among the educationists that mobile learning can be unanimously characterized as 'spontaneous', 'personal', 'informal', 'contextual', 'portable', 'ubiquitous' (available everywhere) and 'pervasive'(Mobile learning, n.d.). Another important component of mobile learning is the media it is facilitated by, i.e. mobile devices. Some prime examples of mobile devices are tablet pcs, iPads, smartphones and laptop computers.

So, mobile learning is either learning from a mobile device or learning while mobile (for example, outside the classroom). It means that it can be up to the learner when and where to use the mobile device for the maximum learning benefit. Therefore, convenience and flexibility are the main features of mobile learning (Savill-Smith, 2006).

2. HISTORY OF MOBILE LEARNING

The beginning of the 21st century was marked with the expansion and popularity of e-learning which since then has been adopted as good practice by many educational institutions worldwide. However, with the emergence of "more robust smartphones and tablets; better connectivity; willingness to go 'lite' - favoring quick access and connectivity, e-learning found its counterpart in mobile learning (Nash, 2012).

Mobile assisted language learning (MALL) was introduced into ELT by the British Council which pioneered language learning supporting mobile 'apps' in 2009 (Hockly, 2012). According to Almasri (2013), recent research findings show that among all the various categories of mobile applications, such as games, lifestyle, travel, music, etc., educational apps come second after games in terms of their popularity among users. Education or learning support delivery is streamed through m-learning applications (apps) that are available in app stores/play stores/google app stores, etc. In addition to the above mentioned benefits, most apps are free or quite cheap.

Mobile learning has become particularly popular with the youth. It is felt by many researchers on an intuitive level that there is an intimate connection between mobiles and youth (Goggin, 2013). Bidin and Ziden (2012) state that the newly coined terms such as 'digital natives' (Prensky, 2001), 'new millennium learners' (Pedró, 2006), 'the net generation' (Tapscott, 1999), 'the gamer generation' (Carstens & Beck, 2005) and 'generation M' (Rideout, Roberts, & Foehr, 2005), refer to the same generation of learners. Prensky, Pedró and Tapscott (as cited in Bidin & Ziden, 2012) agree that these learners are known as the ones who socialize in media-based world and they share "some common characteristics: think and process information very much different from their predecessors, do multitasks, prefer multimedia to written texts, collaborate and network, want to have fun at work and at school, hence, opt for games than 'serious' work and for them speed and innovation are a part of life" (p. 721).

Since youth are advocates of technology, they are more likely to find interest in mobile educational apps and be quick in using them. In addition, there are other reasons why m-learning might appeal to learners. According to Wang (as cited in Liu, 2010), "performance expectancy, effort expectancy, social influence, perceived playfulness, and self-management of learning" (p.3), are crucial factors that affect learners' intention to use m-learning. This shift in learners' socializing and habits of acquiring information and expressing themselves has led to an ultimate transformation of distance learning through e-learning into the present day m-learning paradigm (Bidin & Zaden, 2012).

3. FACTORS INFLUENCING THE USE OF M-LEARNING IN EDUCATION

Mobile learning or m-learning is an integral part of blended learning which gives learners a wide range of opportunities to acquire knowledge and skills through various contexts and contents. This type of learning is available to anyone who has access to the internet and uses a smart-phone.

There are a number of benefits that mobile learning offers teachers and learners. The main characteristics that distinguish m-learning from other modes of instruction are its availability inside and outside the classroom, quick access, and a variety of content delivery ways. Another advantage of m-learning is that it moves learners away from the so-called brick-and-mortar settings giving them more freedom to manage their learning resources and time. It also

facilitates learners' interaction with their teachers and peers. Mobile apps provide teachers and students with "activities that focus on consumption of content and activities that encourage the production of language" (Hockly, 2012). According to Puentedura (as cited in Hockly, 2012), some mobile activities replace a traditional tool, whereas others can be implemented only through mobile devices. These activities constitute the SAMR model (Substitution, Augmentation, Modifications, and Redefinition).

Some research has been conducted on why and how the mobile learning is used to serve the needs of the teachers and learners. The findings have been classified into three main categories of factors influencing using m-learning in addition to the traditional mode of instruction. According to Bidin and Zaden (2012), these categories are "the features of the devices, user's expectations and pedagogical advantage" (p. 722). Each category is further divided into subcategories. Let us examine each of them.

Economides and Nikolaou (n.d) consider usability and functionality to be the features of the devices. Usability of a device is the physical characteristics of the device. Usually, it is its lightweight and small size that makes users willing to use the device often. The interface of the device, the attractive colors and easy navigation can also add to the appeal of the device. According to Bidin and Zaden (2012), spontaneity and continuity are innate characteristics of mobile learning. In many cases students and teachers feel the need to get and transfer the information fast. This can be achieved only with the help of mobile technologies. Continuity of learning can be supported by m-learning facilities. Students can continue working on their assignments after the class on their mobile devices by picking up where they stopped at the lesson.

The next category is user's expectations. It encompasses sense of ownership, privacy, self-regulated learning, flexibility, and lifelong learning. After doing some research on many successful mobile learning projects, Naismith and Corlett (as cited in Bidin & Zaden, 2012), have discovered that one critical aspect of the success of these projects was the participants' sense of ownership. Learners involved in mobile learning were motivated by the idea of owing the learning tool. Ozdamli and Cavus (2011) state that mobile learning is private. Students can access the information independently of others and communicate with the teachers by securing their privacy. Also researchers such as Watts, Selfe and Makoe (as cited in Bidin & Zaden, 2012), stress that another innate feature of mobile learning is that it allows the students to take control of their own learning by deciding when, where, at what pace to be engaged in the learning task. They can also pick up what they want to do according to their interest, provided the teacher acts as a consultant who can direct the students to the right content or activity based on their individual needs. Mobile learning is an indispensable tool for a targeted and an individualized teaching and learning. The mobility of the present day life turns the flexibility of learning into an imperative. Learning can happen at any place and any time provided the learner is equipped with a mobile device and a proper connection network is available (Cavus & Al Momani, 2011). In addition to what has been said above, mobile learning offers its learners life-long learning opportunities, as well as fun through mobile educational games, which apparently break the usual boredom and routine either felt or associated with a traditional classroom (Bidin & Zaden, 2012).

The third group of factors impacting the choice of mobile learning is the pedagogical advantage. The use of mobile learning is conducive to the implementation of various pedagogical approaches to teaching (Bidin & Zaden, 2012). For example, collaborative learning can be easily set up and implemented in the era of fast developing social networks and accessibility to mobile devices. Blended-learning is a combination of a face-to-face

teaching and learning environment and mobile technologies to support and enhance either in the traditional classroom settings or after school activities. Other examples of varied pedagogies are interactive learning, experiential learning and problem-based learning. It is important to know that all the above mentioned pedagogies engage learners in an ongoing communication with the outside world through the help of mobile devices. Therefore, the phenomenon of interaction lies in the basis of mobile learning.

4. Mobile Technology and Pedagogical Implications

Researchers have tried to review the current literature on pedagogical practices and explored the existing mobile applications and their utilization in various institutions on different scales of implementations. Naismith et al. (2004) have highlighted the new learning and teaching practices and the role of mobile technologies in promoting them. The researchers have adopted an activity-based point of view and their extensive review of the literature has revealed six broad theory-based categories of activity that can be supported by mobile technologies. These six theory-based activities are: behaviorist, constructivist, situated, collaborative, informal and lifelong, learning and teaching support. Behaviorist activities promote learning as a change in learner's observable actions. When engaged in constructivist activities, learners construct new ideas based on their previous knowledge. Situated activities are designed to take place in an authentic context and culture. Collaborative activities promote learning through social interaction. Informal and lifelong activities are those which engage students outside the formal educational settings and encourage an ongoing learning process. Last but not least, learning and teaching support activities aid teachers' organizing resources and coordinating learners. Naismith et al. (2004) have also provided the reader with examples of how each theory type can be implemented through various mobile applications.

Park (2011) presents 'mobility hierarchy', developed by Gay, Rieger and Bennington in 2002, that illustrates some contrastive attributes of mobile devices, as well as the range of applications including four levels of objectives that "encourage the use of mobile computers in education settings" (Park, 2011, p.81). According to Park (2011), the focus of 'productivity' (level 1) is "content-intensive, whereas the focus of collaboration and communication (level 4) is communication-intensive" (p.81). He further goes on to explain that "level 1 aims at individual learning, and level 4 aims at collaborative learning by multiple users; levels 2 and 3 fall into the middle-range applications, such as personal tour guides, computer-aided instruction, database activity, mobile libraries, and electronic mail" (p. 81). Park's (2011) mobility hierarchy is presented in Table 1.

Thus, it can be easily inferred that mobile learning is a huge field of mobile and educational technologies that are brought together to offer the future generations (educators and learners) of a knowledge-based society of the modern era with a vast amount of opportunities to learn and grow. Quinn (2010) identifies four global functions of mobile learning, the so-called 'four Cs'. They are content, compute, capture, and communicate. Content comprises information (text, images, and videos) that is shared with the learner. Compute describes the activity of processing the data received from the learner. The information can be captured by using sensors (camera, GPS) for further sharing or reflection practices. Finally, mobile technologies connect learners together which allows further life-long communication and learning.
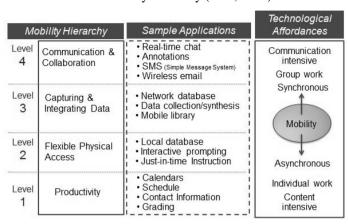
Table 1 Mobility hierarchy (Park, 2011)

Mobility Hierarchy		Sample Applications	Technological Affordances
Level 4	Communication & Collaboration	• Real-time chat • Annotations • SMS (Simple Message System) • Wireless email	Communication intensive Group work Synchronous
Level 3	Capturing & Integrating Data	• Network database • Data collection/synthesis • Mobile library	Mobility
Level 2	Flexible Physical Access	• Local database • Interactive prompting • Just-in-time Instruction	Asynchronous
Level 1	Productivity	• Calendars • Schedule • Contact Information • Grading	Individual work Content intensive

5. MOBILE TECHNOLOGY AND TEACHER AND LEARNER ROLES

Mobile learning and teaching would never happen without teachers and learners embracing them and using them. According to Ozdamli and Cavus (2011) the gradual introduction of mobile technologies into education has started to redesign the role of teachers and learners. The role of a learner has changed immensely from that of a passive listener to the decision- maker. The same researchers have highlighted the learner roles in mobile learning: accessing information when needed; being responsible for one's own learning; learning at one's own learning speed; discovering and using one's own learning style; creating and sharing new information or product; studying with peers collaboratively; evaluating one's own progress and the progress of the others (Ozdamli & Cavus, 2011). On the other hand, according to Halis (as cited in Ozdamli and Cavus, 2011), teachers have grown out of their traditional role of experts into consultants. Broadly speaking, teachers have become consultants and the 'digital native' students are active, engaged participants and controllers of their own learning.

With these multiple benefits and attractive features, m-learning has found its way into the classroom. The nature and purpose of these apps determine their use. Mobile-learning apps can be used both by content and language instructors as a tool to deliver the subject-matter, or as a tool to enhance learners' language skills and knowledge. In addition, they can be considered quite handy classroom management tools. These are apps that serve as virtual classrooms or virtual learning platforms. Quite a few of them have been developed recently and have gained popularity among teachers and students due to their novelty and diverse features, e.g. Schoology, Google Classroom, etc. And Edmodo is among them.

6. EDMODO

6.1. Brief overview

In 2008, two school employees, Nic Borg and Jeff O'Hara, decided to bridge the gap between students' lives and how they learn in school. Edmodo was created "to bring

education into a 21st century environment." (Edmodo, 2015, n.p.) In his interview to Openeducation.net, explaining the origin of the name 'Edmodo', Jeff O'Hara contends that it is "completely made up, but is a slight play on Gizmodo.com, a very popular gadget blog, and Ed obviously stands for education" (Openeducation.net, 2011, n.p.).

Today, Edmodo is based in San Mateo, California. The company profile describes Edmodo as one of the leading K-12 social learning networks in the world, dedicated to connecting all learners with the people and resources they need to reach their full potential. At present, the platform has 50,470,932 members. According to Dunn (2012), Edmodo is among the top 20 most popular LM systems and ranked the second best one after Moodle.

What makes Edmodo popular? In order to answer this question it is necessary to study its features and opportunities it creates both for teachers and learners for successful studying experience.

6.2. Edmodo features

Edmodo is an LMS platform (Edmodo.com, 2015, n.p.). It is user-friendly and has a Facebook interface. Edmodo is highly interactive and has a handy app to install. Interaction through Edmodo adds to class dynamics by creating a platform for quick, real time communication. All the features and functions of Edmodo reflect most of the theories and have the potential to implement the practices discussed in the previous sections. The two main attractive features of Edmodo are the security and the real time communication between the students and the teachers. The mobile app version of Edmodo is also available on Android and iOS. It is absolutely secure and every group has an access code that can always be reset by the teacher if there is a need for it. For example, if the code has been given to an outsider, a student not in the group, a teacher can always delete the student and change the group code. Students can only interact with the teacher or the group. There is no chance for individual student interactions. However, it enables student-teacher and student-group interaction in real time. This feature, I should say, makes Edmodo extremely suitable in our teaching environment. Another good feature of Edmodo is that its content can be accessed either through a full website or through a mobile app. The latter provides students with fast access to the posted information and provokes fast responses irrespective of the time of the day or their location.

6.3. Edmodo functions

Edmodo is versatile. It serves as a communication channel, as well as an organizer of a teaching process. It can tremendously assist teachers in organizing and managing their courses. A teacher can utilize various Edmodo functions to post announcements, create quizzes, share main events via calendar, etc. Below we will discuss each function and how it can be utilized by the teacher.

6.3.1. Create a group

First and foremost, a teacher creates a group, names it and receives a group code, which he/she later shares with the students. The students enroll in Edmodo by using the group code. Anyone with the group code can enroll in the course. However, the teacher can monitor who is in the group and if there is someone not from her group, she/he can

remove them. Originally, the teacher is requested to provide the platform with an approximate number of the students in the group and if the number of the enrolled students exceeds the set number, the teacher can always check and eliminate the outsiders. This feature is particularly useful at the initial stages of the implementation of the platform, when the teacher is not familiar with the students yet. In the middle-eastern setting, the issue of privacy in mixed-gender classrooms is of paramount importance. In this respect Edmodo is a useful and secure communication platform. It is set up in such a way that students can communicate with the teacher or the whole group but not with each other.

6.3.2. Notes

As it was already mentioned above, Edmodo serves both as a communication platform and as a course organizer. Teachers and students can send announcements, comments, alerts, as well as share media files and images, with the whole group and with individual students and the teacher, respectively. Since all the students are required to have the mobile app installed on their mobile devices, they receive the notifications via email and can promptly respond to the messages either via email or directly from the app. This feature enables fast and real time communication. It saves time and can be used both by the teacher and the students to enhance communication and affect the dynamics of the communication. Notes and alerts can be scheduled to be sent in the right time. If the teacher has prepared an announcement beforehand but does not want to send it right away they can schedule it for any time and day. The note or alert will be automatically sent to the students on the scheduled time.

6.3.3. Assignments

Assignments are part and parcel of any course. Assignments can be scheduled and announced accompanied by attached images, media, word docs, spreadsheets and links among others. The assignments on Edmodo can be graded by the teacher, and there is a special place for marks and comments. Assignments must have deadlines, otherwise they cannot be shared with the students. Unfortunately, the platform does not offer any text editing tools, which makes assignment marking a bit impractical.

6.3.4. Quizzes

Edmodo allows teachers to create quizzes online. These quizzes are archived and can be later edited and reused infinite times. In Edmodo, teachers can create quizzes in a variety of formats: multiple-choice, matching, true and false, short answer questions. All these question types can be incorporated into one quiz. Quizzes can be named, timed and assigned to the class. Quizzes must have deadlines as well. Teachers can attach documents or links to the quizzes. All the questions are automatically marked except the short answer questions. These are checked by the teacher. Both assignments and quizzes encourage independent learning. In situations when the teacher is short of time and cannot use the class time for practice quizzes, for instance, they can create online quizzes and let students do them on their own.

6.3.5. Check progress/badges

Another feature of Edmodo is checking progress. The teacher can track both the overall progress of the group, as well as that of an individual student. Depending on the progress the student has made, the teacher can reward him/her with a badge. It is done to trigger students' motivation and appreciation of their work.

6.3.6. Polls

Polls are a tool to express opinions, and for the teachers they create an opportunity to collect feedback. Teachers can invite students to take part in polls, an activity through which students' opinions and preferences can be voiced. This function can be used to learn about students' reaction to a new activity done in class or their general evaluation of their peer's presentation in class.

6.3.7. Library

Edmodo library is cloud storage for all teacher files. Files can be uploaded to the library and later shared with the students. All the attachments on Edmodo are automatically saved in the library. The uploaded files of the students can also be found there. The files can be sorted into folders, which makes the navigation through the library easy and fast.

6.3.8. Calendar

The Calendar feature allows the teacher to mark the important dates in the calendar. The students will be notified about these dates. For example, exam dates and assignment deadlines can be shared with the group. All the deadlines set for assignments and quizzes are automatically saved in the Calendar.

6.3.9. Support team

Edmodo also has a good support team. They offer help online and are very quick in responding to teachers' queries worldwide.

6.3.10. Annual conferences

Edmodo organizes annual conferences to bring the community of users together. EdmodoCon is a live online event where educators all over the world come together to share different ways of utilizing Edmodo and other digital tools to promote personalized learning. Edmodocon is an educational collaboration event of the year and is streamed live from the San Francisco Bay Area. It is aimed to create collaborative environment, help teachers discover great new resources, and feel inspired to harness the potential of edtech in their classroom (Edmodocon, 2015, n.p.).

7. CONCLUSION

Edmodo is a virtual learning management platform that encompasses diverse characteristics of mobile learning. As a consequence, it can be effectively used by both teachers and students to communicate freely and promptly without any waste of time. The

platform has a wide variety of features that facilitate efficient course management and can positively affect interaction between teachers and students. In the hands of a creative teacher, Edmodo can become a great tool to instill independent learning skills in the 21st century learners.

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