

Mobile Learning: A mode to Transform the World of Learning

T. Blessy*, Dr. B. William Dharma Raja**

**Ph.D. Scholar cum Asstt. Prof., Bethlahem College of Education, Karungal*

***Prof. and Head, Deptt. of Education, Manonmaniam Sundaranar University,
Tirunelveli*

Abstract

The tremendous effect of Information Technology on society is undeniable. This is evident in education as it relates to active learning, blended learning, electronic learning, mobile learning and ubiquitous learning. Mobile phones are becoming popular as many people can afford to buy one. Currently, the uses of mobile devices have gone just beyond the traditional communication role, but are also being used in supporting teaching and learning in educational settings. Mobile devices deployment in education has given much popularity to mobile learning. It seems that mobile devices will lead to overcome the narrow limits of the classroom to achieve ubiquitous learning. With the proliferation of mobile devices, mobile learning has become a learning paradigm in education. Information delivery media, which can be adopted in m-learning environment, includes WhatsApp, Email, SMS, Twitter, and BBM to inform learners of the learning activities. This paper highlights the various areas of application in M-learning.

Keywords

Mobile learning, Ubiquitous, Distance learning, Social Constructivism

Reference to this paper
should be made as follows:

**T. Blessy*,
Dr. B. William Dharma
Raja**,**

*Mobile Learning:
A mode to Transform the
World of Learning,*

RJPSSs 2018, Vol. 44,
No.1, pp.120-127,
Article No. 17,

Online available at :
[http://anubooks.com/
?page_id=2012](http://anubooks.com/?page_id=2012)

Introduction

Fast-tracked technological development has been transpiring globally in the digital age (Seifert, 2016). It is a hidden fact that technology has taken over the society in last few years. Everyone is using technology, from children and teenagers to adults and elders. Technology is vital in today's world and makes everything easier. It has transformed our ways of communicating, socializing, playing, shopping and everything we do. These profound changes are placing increasing pressure on the traditional models of teaching and learning. Due to ever-increasing and diversified needs of the students technological advancements are also taking place in the field of education every day. These days' mobile phones are ubiquitous with everyone and there is lot of craze for messenger applications a new method of knowledge addition called 'm-learning' has emerged in the global scenario (Bansal & Joshi, 2014). Mobile learning offers learning opportunities to learners without the limitations of time and space. Mobile learning has introduced a number of flexible options to the learners across disciplines and at different educational levels (Imtinan, 2013). Mobile learning enables learners to learn anywhere and at any time using mobile technologies (Vosloo, 2012).

Social constructivist learning theory

The factors contributing to effective learning are learner centred, Knowledge centred, Assessment centred and Community centred.

Learner centred: It is developed from students' own knowledge and skill; enabling them to think based on their previous knowledge.

Knowledge centred: The learning process comes from validated knowledge that was taught inventively by using different methods.

Assessment centred: The learners are assessed accordingly based on their ability and the assessment is able to offer diagnosis and further guidance.

Community centred: An effective learner will form a community to share knowledge and support those who are less able in their studies (National Research Council, 1999, as cited in Sharples et al., 2005).

Learning is the outcome of social interactions between students in collaborative learning activities. Activities can include sharing through mobile devices, such as discussion forums (Chan, 2005), which can be used for knowledge construction sharing (Gillingham & Topper, 1999). Social constructivist learning theory seeks to improve social interactions between students and to construct and share knowledge (Vygotsky, 1978). According to Richard and Haya (2009), internet is useful in helping students both construct and share their knowledge. The use of Internet technology by online

learning communities may provide mobile learning resources in synchronous or asynchronous modes (Zengin et al., 2011).

Advancement in the domain of learning

Mobile devices such as laptops, personal digital assistants, and mobile phones have become a learning tool with great potential in both classrooms and outdoor learning (Sung, Chang & Liu, 2016 in Baek, 2017). The access to learning resources anywhere, anytime, and in various formats has the potential to enhance deep student learning capabilities and to allow students to construct their own knowledge. Mobile learning studies the possibilities offered by mobile devices, smartphones, tablets, mp3 players, and in the future smart-watch and smart-glasses in order to obtain improvements in the learning field. The slogan of ‘*everywhere, anytime*’ has been so widespread (Attewell & Savill-Smith, 2005). The ubiquity understood as omnipresence is the value of mobile technologies. Their most striking feature but at the same time from a pedagogical point of view, it’s the more insidious challenge of mobile learning (Simone, 2016).

Mobile learning is often viewed as an updated version of e-learning, which incorporates learning experiences with electronic devices. Mehdipour and Zerehkafi (2013) claims that there is a whole part relationship between e-learning and mobile learning in the wider context of digital learning. This view considers mobile learning as a part of e learning. Similarly, e-learning is a part of modern digital learning. Mobile learning can be viewed as a paradigm shift within the framework of e-learning. E-learning is often equated with the internet connected desktop computer based learning experiences.

Mehdipour and Zerehkafi (2013) drew a distinction between e-learning and mobile learning. E-learning can be real-time or self-paced, also known as “*synchronous* or *asynchronous* learning. Additionally, E-learning is considered to be tethered (connected to something) and presented in a formal and structured manner. In contrast, mobile learning is often self-paced, un-tethered, and informal in its presentation. Traxler (2007) claims that the distinction between e-learning and mobile learning is blurred because mobile technology has largely overcome previous barriers of effective mobile learning (Parajuli, 2016).

Perspectives of M-Learning

Mobile learning is defined differently by different people. Early perspectives of m-learning were focused on technology, and defined as the delivery of training by means of mobile devices such as mobile phones, PDAs and digital audio players, as well as digital cameras and voice recorders, pen scanners, etc. MoLoNET (2007)

defined it as “the exploitation of ubiquitous handheld technologies together with wireless and mobile phone networks, to facilitate, support, enhance and extend the reach of teaching and learning.”

Another view of m-learning focuses on mobility. Keagen (2005) suggests that m-learning should be restricted to learning on small and portable devices. New mobile learning perspectives accept m-learning as a paradigm change. One of these perspectives is the learner-centred perspective. It asserts that m-learning is a sort of learning that happens when the learner is not at a fixed, predetermined location or learning opportunities offered by mobile technologies (O’Malley et al., 2003).

The other perspective focuses on individualism. According to this perspective, m-learning is defined as any activity that allows individuals to be more productive when consuming, interacting with, or creating information and mediating through a compact digital portable device that the individual carries on a regular basis has reliable connectivity and fits in a pocket or purse (Wexler et al., 2008).

Pedagogical benefit in M-Learning

When an educator uses any kind of technology ineffectively, students would learn in a passive way (Humes et al., 2010) which could bring a negative outcome. Therefore, Gilakjani et al. (2013) proposes that a pedagogy or theory framework is needed when using technology “to model their instruction with” (p. 49). Norazah et al. (2010) also agrees saying that technology-based media are required to use learning theories. Mobile devices could also use the same technique to ensure learning is done successfully.

Features of M- Learning

Mobile based learning features enable location based learning as well as other flexible alternative teaching strategies and may be able to enhance the effects of pedagogies such as self directed learning, inquiry learning and formative assessment (Sung et al., 2016). On the positive end, learners can extend their classroom learning activities to homework, field trips, and museum visits by reviewing teaching materials on mobile devices and for collecting and analysing information using handheld data probes.

Mobile learning technologies use a variety of mobile devices, such as Mp3 players, notebooks, mobile phones, iPads, iPods, iPhones, tablets, and so on (Trentin&Repetto, 2013). With the introduction of smart phones, the popularity of mobile applications has raised and its usage has become increasingly prevalent among mobile users. There are several features of mobile phones like Voice, SMS, browsing, downloading, gaming and variety of applications.

Usage of Mobile App

More generic tools, which were used more widely include various Google apps such as Google Docs, Google Earth and Google Classroom. Several social media apps are such as Twitter, Facebook, Pinterest, photo/video/movie apps, synchronous communication tools and quiz apps. Many of these were used for creating work for sharing or assessments. Specialist mobile apps included Hopscotch (for coding), Game root (for game creation), maths apps such as Mathletics, Explain Everything for presentations, reading and writing apps such as Chatterpix, among a range of others (Parsons, 2016).

M-Learning Supreme for distance learners...

The information and communication technologies shared between online students through social interactions on mobile tools promote opportunities for online cooperation and collaboration (Barhoumi & Rossi, 2013). Mobile educational technologies provide online learners with opportunities to communicate and share knowledge (Nelson, Christopher, & Mims, 2009 in Barhoumi, 2015). Educational mobile tools have emerged and show great potential to help students construct and share information and knowledge for learning through computers or mobile devices (Pence, 2007). Kukulska-Hulme and Traxler (2007) suggest that mobile devices used in distance learning are more suitable for informal learning than formal learning and are also suitable for situated, authentic and personalized mobile learning.

Mobile in and out of teaching space

The need to take learning out of classroom and not limit it to the four corners of a classroom has brought about the initiative of mobile learning. Mobile learning offers methods which decrease the limitations of traditional education. Learning can come in a variety of ways: students can use mobile devices to access educational resources, connect with others, or create content, both inside and outside classrooms. Mobile Learning facilitates accessing various educational resources on Internet and helps developing and creating interesting teaching content that can be used inside or outside classrooms (UNESCO, 2013 in Elfeky, 2016).

Teachers and educators are trying to adopt it into the classrooms. Learning results from social interactions between students in collaborative learning environments. These social interactions usually involve social media like SMS, WhatsApp, Facebook, Twitter, BBM etc (Boyinbode, 2017).

For efficacious M- learning

Teachers and students should be confident in using emerging technologies appropriately in order to teach in the 21st century (Seifert, 2016). Naismith and

Corlett(2006) indicate five factors for integrating M- learning successfully;having access to technology,owning the technology,connectivity, integration of M- learning into teaching and providing training and technical support.

To Sum up

M-Learning can deliver the right information to the right person at the right time better than any other learning/teaching technology yet devised. M-Learning not only fosters the way we access information, but also helps learners be innovative and good problem-solvers. To think about strategies for learning through mobile devices isbecoming more effective and easy given the popularity of these devices amongstudents. Whereas, there are teachers who accept challenges and are willing toincorporate this type of technology in the classroom, others are more reluctantand resist changes in their educational practices. To improveM-learning effectiveness, teachers need to be adequately prepared toimplement technology in their teaching and learning practice. When we propose a learning environment supported by emerging digitaltechnologies, we intend to reinforce the adoption of these technologies in order to form a wide community of teachers who share experiences and digitalmaterial. In fact, while updating their knowledge, users of this platform willcertainly rethink pedagogies and focus on teaching methods that extend theclassroom beyond the traditional learning environments.

References

1. Attewell, J., &SavilSmith, C. (2005). *Mobile learning anytime everywhere. A book of papers from MLEARN 2004*. London: Learning and Skills Development Agency.
2. Baek, Y., Zhang, H., & Yun, Seongchul. (2017). Teachers Attitudes toward Mobile learning in Korea. *TOJET: The Turkish Online Journal of Educational Technology, 16*(1).
3. Bansal, T.,& Joshi, D. (2014). A Study of students' experiences of Mobile learning. *Global Journal of Human-Social Science: H*Interdisciplinary, ISSN: 2249-460x
4. Barhoumi, C. (2015). The effectiveness of WhatsApp Mobile learning activities guided by activity theory on students' knowledge management. *Contemporary Educational Technology, 2015, 6*(3), **221-238**.
5. Barhoumi, C., &Rossi, P.G. (2013). The effectiveness of the instruction oriented hypertext systems compared to direct instruction in e-learning environment. *Contemporary Educational Technology, 4*(4), **281-308**.
6. Boyinbode, O.K., Agbonifo, O.C., &Ogundare.(2017). Supporting mobile learning with WhatsAppbased on media richness. *Circulation in Computer Science, 2*(3), **37- 46**.
7. Chan, L. (2005). *WebCT revolutionized e-learning. UBC Reports, 51*(7).
8. Elfeky, A.I.M.,&Masadeh, T.S.Y.(2016). The effect of Mobile learning on students' achievement and conversational skills. *International Journal of Higher Education, 5*(3).
9. Gilakjani, A. P., Leong, L. M., & Ismail, H. N. (2013). Teachers' use of technology and

constructivism. *International Journal of Modern Education and Computer Science (IJMECS)*, 5(4), 49.

10. Gillingham, M. G. & Topper, A. (1999). Technology in teacher preparation: Preparing teachers for the future. *Journal of Technology & Teacher Education*, 7(4), 303-321.

11. Humes, J., & Raisner, J. (2010). *Constructivism in educational technology*. Retrieved from http://scholar.google.com.my/cholar?q=Constructivism+in+Educational+Technology&btnG=&hl=en&as_sdt=0%2C5&scioldt=0%2C5&cites=280279604757190633&scipsc=

12. Imtinan, U., Chang, V., & Issa, T. (2013). Common Mobile learning characteristics-An analysis of Mobile learning models and frameworks. *International Conference Mobile Learning*.

13. Keagen, D. (2005). The Incorporation of Mobile Learning into Mainstream Education and Training. Proceedings of mLearn2005-4th World Conference on m-Learning, Cape Town, South Africa, 25-28 October 2005. Retrieved from <http://www.mlearn.org.za/CD/papers/keegan1.pdf>.

14. Kukulska-Hulme, A., & Traxler, J. (2007). Designing for Mobile and wireless learning in H. Beetham, & R. Sharpe (Eds.). *Rethinking pedagogy for a digital age: Designing and delivering E-learning*. London: Routledge.

15. Mehdipour, Y. & Zerehkafi, H. (2013). Mobile learning for education: Benefits and challenges. *International Journal of Computational Engineering Research*, 3(6), 93-100.

MoLeNet, (2007). What is the mobile learning? Retrieved from <http://www.molenet.org.uk/>

16. Naismith, L., and Corlett, D. (2006). Reflections on success: A retrospective of the mLearn conference series 2002- 2005, In Proceedings of the 5th World Conference on Mobile Learning, Banff, Alberta, Canada, 2006.

17. Nelson, J., Christopher, A., & Mims, C. (2009). TPACK and Mobile: Transformation of teaching and learning. *TechTrends: Linking Research & Practice to Improve Learning*, 53(5), 80-87.

18. Norazah, M. N., Embi, M. A., & Melor, M. Y. (2010). Mobile learning framework for lifelong learning. *Procedia-Social and Behavioral Sciences*, 7, 130-138.

19. O'Malley, C., Vavoula, G., Glew, J., Taylor, J., Sharples, M. & Lefrere, P. (2003). Guidelines for learning/teaching/tutoring/in a mobile environment. Mobilelearn project deliverable. Retrieved from www.mobilelearn.org/download/results/guidelines.pdf

20. Parajuli, K.P. (2016). Mobile learning practice in higher education in Nepal. *International Council for open and Distance Education*, 8(1), 41-54. DOI: <http://dx.doi.org/10.5944/openpraxis.8.1.245>.

21. Parsons, D., Thomas, H., & Wishart, J. (2016). Exploring mobile affordances in the digital classroom. 12th International Conference Mobile Learning

22. Pence, H. E. (2007). Preparing for the real Web generation. *Journal of Educational Technology Systems*, 35(3), 347-356.

23. Richard, H., & Haya, A. (2009). Examining student decision to adopt web 2.0 technologies: theory and empirical tests. *Journal of computing in higher education*, 21(3), 183-198.

24. Seifert, T. (2016). Patterns of mobile technology use in teaching: The teacher perspective. *i.Manager's Journal of Educational Technology*, 13(3), 1-17.
25. Sharples, M., Taylor, J., & Vavoula, G. (2005). Towards a theory of mobile learning. *Proceedings of mLearn*, 1(1), 1-9.
26. Simone, G.C.D. (2016). Mobile learning: Extreme outcomes of everywhere, anytime. *12th International Conference Mobile Learning 2016*
27. Sung, Y.T., Chang, K.E., and Liu, T.C., (2016). The effects of integrating mobile devices with teaching and learning on students' learning performance: A meta-analysis and research synthesis. *Computers & Education*, 94, 252- 275.
28. Traxler, J. (2007). Defining discussing and evaluating Mobile learning: The moving finger writes and having writ... *The International Review in Open and Distance Learning*, 8, 1-13.
29. Trentin G. & Repetto M. (Eds). (2013). Using network and mobile technology to bridge formal and informal learning. Woodhead/Chandos.
30. Vosloo, S. (2012). UNESCO policy guidelines for Mobile learning. In: UNESCO (ed.). Paris, France: UNESCO.
31. Vygotsky, L.S. (1978). Mind in society: The development of higher psychological processes. *Cambridge, MA: Harvard University Press*.
32. Wexler, S., Brown, J., Metcalf, D., Rogers, D., & Wagner, E. (2008). The e-learning guild report Mobile learning. Retrieved from <http://www.elearningguild.com/research/archives/index.cfm?id=132&action=>
33. Zengin, B., Arıkan, A., Dogan, D. (2011). Opinions of english major students about their departments' Websites. *Contemporary Educational Technology*, 2(4), 294-307.