

The Mobile Learning Enhances the Quality of Learning: A Study

S.Vijayakumar¹ and V.RameshBabu²

¹Librarian, NGM College, Pollachi, Tamil Nadu, India

²Librarian, T.B.M.L College, Porayar, Tranquebar, Nagapattinam, Tamil Nadu, India

E-mail: vijaylis2007@gmail.com, veerameshbabu@gmail.com

Abstract - The use of mobile phones and other portable devices is beginning to have an impact on how learning takes place in many disciplines and contexts, including language learning. Learners who are not dependent on access to fixed computers can engage in activities that relate more closely to their current surroundings, sometimes crossing the border between formal and informal learning. This creates the potential for significant change in teaching and learning practices. Taking the broader field of mobile learning as the setting within which developments in mobile-assisted language learning may be understood, the paper argues that an emphasis on mobility can lead to new perspectives and practices. With increased popular access to information and knowledge anywhere, anytime, the role of education, perhaps especially formal education, is challenged and the relationships between education, society, and technology are now more dynamic than ever. The present paper was based on secondary sources of data highlighting of concept, Features, values, Challenges and advantages of M-learning.

Keywords: Mobile learning, Learning, Mobile Technology

I. INTRODUCTION

Learning is an active process of building knowledge and skills through practice within a supportive community. It comprises not only a process of continual personal development and enrichment, but also the possibility of rapid and radical conceptual change [1]. A first step in postulating the theory of Mobile learning is to distinguish what is special about mobile learning compared to other types of learning activities. An obvious, yet essential, difference is that it starts from the assumption that learners are continually on the move. We learn across space as we take ideas and learning resources gained in one location and apply or develop them in another. We learn across time, by revisiting knowledge that was gained earlier in different context, and more broadly, through ideas and strategies gained in earlier years providing a framework for a life time of learning. The need to re-conceptualize learning in the mobile age has given rise to intensive research work on Mobile learning. In recent times, this need has also propelled researchers to recognize the essential role of mobility and communication in the process of learning. That is to say, the role communication and interaction play in the learning process is a critical success factor.

Within this context Mobile learning can contribute to the overall quality and accessibility of learning. The term Mobile learning is coined to describe the convergence of mobile technologies with e-learning. Unlike the traditional

teaching and learning environments, in which learners follow a fixed sequence to instructional resources, such as textbooks in classroom settings, Mobile learning as an extension of E-learning has the potential to make learning even widely available and more accessible than we are used to in the existing E-learning environments. While mobile devices are approaching ubiquity today, the Mobile learning industry is still in its infancy [2]. Mobile learning, like E-learning has no standard model per se; only enhancements of models of learning.

II. OBJECTIVES OF THE STUDY

The following were the specific objectives of this study:

1. To shed light on the concept of Mobile learning.
2. To focus on the characteristics of Mobile learning.
3. To explore the advantages of Mobile learning.
4. To focus on the features of Mobile learning
5. To explore the Benefits and challenges of Mobile learning

III. DESIGN OF THE STUDY

The researcher was adopted the analytical descriptive approach in information, facts, concepts and opinion related with various phases of this study. The researcher was also reviewed previous literature of the concept, characteristics, advantages, Benefits and challenges Mobile learning.

IV. PLAN OF THE STUDY

The study was done in five main phases:

1. First Phase: The concept of M-learning.
2. Second Phase: The characteristics of Mobile learning.
3. Third Phase: The Advantages of M-learning.
4. Fourth Phase: The features and Value of M-learning.
5. Fifth Phase: The Benefits and challenges of M-learning

A. First Phase: The concept of M-learning

The term Mobile learning or "Mobile Learning", has different meanings for different communities, that refer to a subset of E-Learning, educational technology and distance education, that focuses on learning across contexts and learning with mobile devices. Mobile learning has many different definitions and is known by many different names,

like M-Learning, U-Learning, personalized learning, learning while mobile, ubiquitous learning, anytime / anywhere learning, and handheld learning. One definition of mobile learning is, "any 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" (MOBIlearn., 2003) [3]. In other words, with the use of mobile devices, learners can learn anywhere and at any time (Crescente and Lee, 2011) [4]. Mobile learning is considered to be the ability to use mobile devices to support teaching and learning.

Mobile learning 'is certainly not merely the conjunction of mobile 'and learning; it has always implicitly meant mobile E-Learning 'and its history and development have to be understood as both a continuation of conventional-Learning and a reaction to this conventional 'E-Learning and to its perceived inadequacies and limitations.

It is the mobile' aspect of mobile learning that makes it stand apart from other types of learning, specifically designing learning experiences that exploit the opportunities that mobility' can offer us. Mobile learning focuses on the mobility of the learner, interacting with portable technologies, and learning that reflects a focus on how society and its institutions can accommodate and support an increasingly mobile population.

This is because mobile devices have features and functionality for supporting learners. For example, podcasts of lectures can be made available for downloading. Learners are to expect to engage with these learning resources whilst away from the traditional learning spaces. Over the past ten years mobile learning has grown from a minor research interest to a set of significant projects in schools, workplaces, museums, cities and rural areas around the world. The Mobile learning community is still fragmented, with different national perspectives, differences between academia and industry, and between the school, higher education and lifelong learning sectors (Singh, 2010) [5].

B. Second Phase: The characteristics of Mobile learning

The characteristics of mobile learning

1. Real world relevance: Use mobile learning in authentic contexts

Mobile learning occurs in authentic contexts. Problems, challenges, investigations, and explorations that mobile learners engage with are situated in real world contexts that have personal meaning and relevance, allowing deeper understandings to be achieved. The contexts may be commercial, educational or purely lifestyle, and will often involve characteristics of collaboration, reflection, and articulation, (Herrington & Herrington, 2006) [6]

2. Mobile contexts: Use mobile learning in contexts where learners are mobile

The mobile learning is situated in contexts where the learner is mobile across topics, space and time. Commuters engage in mobile learning as they travel to and from work accessing different information and engaging in different tasks, returning to these tasks at different times throughout the day. Clear evidence of mobile learning in this project is seen where early career teachers created audio files of teacher wisdom stories for use as a tool for reflection on teaching.

3. Explore: Provide time for exploration of mobile technologies

While it is apparent that many learners have a greater familiarity with technology than their predecessors it is also clear that some do not. Providing time for learner to explore the Technological features and educational affordances of devices can be done in a variety of ways. Sharing knowledge, peer tutoring and engaging in introductory authentic tasks appear to be useful approaches to developing in students the important understandings of how and when to use the available tools on offer. Evidence indicating the benefits of providing time for students to 'play' with the technologies

4. Blended: Blend mobile and non-mobile technologies

Mobile learning can be enabled by technological tools and infrastructure. Mobile technologies are portable, personalized, and increasingly convergent. People always have them on hand and populate them with personal profiles and playlists, performing a multiplicity of functions. Wireless and telephone networks provide the infrastructure for mobile learners to access and remain networked and connected. There are learning tasks that benefit from a blending of mobile and non-mobile devices. The capacity to sync information and download media adds to the versatility of these devices.

5. Whenever: Use mobile learning spontaneously

Mobile learning can be spontaneous, unanticipated and opportunistic. Being in the right place at the right time to capture significant events provides invaluable knowledge for individuals as well as communities, witnessed by the current reliance of news services on opportunistic recordings made by mobile learners and their technologies. Learners in this project were able to capitalize on the spontaneous events occurring in their classrooms in order to capture perspectives of pedagogical approaches for later exploration.

6. Wherever: Use mobile learning in nontraditional learning spaces

Mobile learning can occur wherever people find a need. Traditionally learning is seen to occur in formal settings like

classrooms and lecture theatres whereas informal learning occurs as we wait for a bus, converse with a colleague over lunch, or engage in work experience. Products created in the art gallery by learner take learning about art and architecture beyond the classroom and into the location where it resides. The ubiquity of mobile devices and the widespread coverage of wireless and telephone networks enable learning to occur independent of location.

7. Whomsoever: Use mobile learning both individually and collaboratively

Mobile learning can occur individually and collaboratively. Listening to a podcast can provide an individual with the knowledge he or she is seeking. Creating and sharing a podcast or audio file requires reflection on knowledge and an opportunity to work with others in the process. Using a focus on teaching within an environmental education required the teachers to individually select and reflect on aspects of their teaching that were also relevant for peer discussion and collaboration as the preserve teachers identified areas for pedagogical change and growth.

8. Affordances: Exploit the affordances of mobile technologies

In some circumstances it is better to choose one technology over another. A digital camera for instance may provide higher resolution images than those taken with a mobile phone. However, being ubiquitous and portable, there is a greater chance that the mobile phone will enable the user to capture spontaneous events. The acknowledged the inferiority of the camera in the smartphone for capturing high quality images, they indicated portability and convenience as overriding factors because the camera produced images that were sufficient for the task.

9. Personalise: Employ the learners' own mobile devices

Using a learner's own device ensures that many of the features of the devices are well known and practiced, although some students may not have used or been aware of all features. Students using devices other than their own require time not only to familiarize themselves with the device, but more importantly to 'play around' with the technology and personalize it for their own use.

10. Mediation: Use mobile learning to mediate knowledge construction

In educational activities it is common for educators and learners to engage in processes such as recording, representation, sharing and reflection to support knowledge construction and co construction, as happened as mathematics learner negotiated the construction of a curriculum resource. Mobile learning provides many opportunities where these processes can be mediated using mobile technologies. As well as being motivating for students the use of mobile technologies blended with web

based technologies can provide resources that aid knowledge construction that are reusable, sustainable and scalable to a wide group of learning.

11. Produce: Use mobile learning to produce and consume knowledge

The predominant use of mobile learning has involved people consuming knowledge by way of podcasts, e books and accessing websites. However, the active construction and co construction of content through media capture and subsequent content creation will increase as learner adopt less Tran's missive and more constructivist approaches to learning.

C. Third Phase: The Advantages of M-learning

According to Attewell (2008) [7], there are several advantages inherent in mobile learning:

1. helps learners to improve literacy and numeric skills
2. helps learners to recognize their existing abilities
3. can be used for independent and collaborative learning experiences
4. helps learners to identify where they need assistance and support
5. helps to overcome the digital divide
6. helps to make learning informal
7. helps learners to be more focused for longer periods
8. helps to raise self-esteem and self-confidence
9. it is portable from one place to another
10. more wide spread and popular than Internet
11. not much technological pre-requisites
12. cost is pretty affordable as comparatively less recurring cost and one-time
13. investment
14. provides real time and location independent

D. Fourth Phase: The features and Value of M-learning

The mobile learning system described by the following features:

1. Allows users to have access to course resources independent of time and place
2. Allows authenticated users to have access to the system
3. Allows users to have access to the resources in different formats (voice, text, picture and video)
4. Allows the reuse of material
5. Allows users to carry out the functions defined as an education component.
6. Offers flexible environment in which other services and components can be added

E. The value of mobile learning (savill, 2010) [8]:

Tutors who have used Mobile learning programs and techniques have made the following value statements in favor of M-Learning.

1. It is important to bring new technology into the classroom.
2. Devices used are more lightweight than books and PCs.
3. Mobile learning can be used to diversify the types of learning activities students partake in (or a blended learning approach).
4. Mobile learning supports the learning process rather than being integral to it.
5. Mobile learning can be a useful add-on tool for students with special needs. However, for SMS and MMS this might be dependent on the students' specific disabilities or difficulties involved.
6. Mobile learning can be used as a 'hook' to re-engage disaffected youth.

F. Fifth Phase: The Benefits and challenges of M-learning

1. Benefits of Mobile learning (Elias, 2011; Crescente and Lee, 2011) [9]:

1. Relatively inexpensive opportunities, as the cost of mobile devices are significantly less than PCs and laptops
2. Multimedia content delivery and creation options
3. Continuous and situated learning support
4. Decrease in training costs
5. Potentially a more rewarding learning experience
6. Improving levels of literacy, numeracy and participation in education amongst young adults.
7. Using the communication features of a mobile phone as part of a larger learning activity, e.g.: sending media or texts into a central portfolio, or exporting audio files from a learning platform to your phone.

2. Challenges of m-learning:

Technical challenges for Mobile learning include:

1. Connectivity and battery life
2. Screen size and key size (Maniar and *et al.*, 2008) [10]
3. Meeting required bandwidth for nonstop/fast streaming
4. Number of file/asset formats supported by a specific device
5. Content security or copyright issue from authoring group
6. Multiple standards, multiple screen sizes, multiple operating systems
7. Reworking existing E-Learning materials for mobile platforms
8. Limited memory (Elias, 2011)
9. Risk of sudden obsolescence (Crescente and Lee, 2011)

V. MOBILE TECHNOLOGIES FOR M-LEARNING

Mobile technologies are an attractive and easy means to maintain literacy skills and gain constant access to information. They are affordable, can be easily distributed

and thus hold great potential for reaching marginalized groups and providing them with access to further learning and development. Mobile technologies facilitate distance learning in situations where access to education is difficult or interrupted because of geographical location or due to post-conflict or post-disaster situations. Mobile devices and personal technologies that can support mobile learning include:

1. E-book
2. Out start, Inc.
3. Handheld audio and multimedia guides, in museums and galleries
4. Handheld game console, modern gaming consoles such as Sony PSP or Nintendo DS
5. Personal audio player, e.g. for listening to audio recordings of lectures (podcasting)
6. Personal Digital Assistant, in the classroom and outdoors
7. Tablet computer
8. UMPC, mobile phone, camera phone and Smart Phone

Technical and delivery support for mobile learning include:

1. 4G, 3G and 2g For compression and delivery method of audiovisual content associated with Mobile Learning
2. GPRS mobile data service, provides high speed connection and data transfer rate
3. Wi-Fi gives access to instructors and resources via internet
4. Cloud computing for storing and sharing files

VI. DISCUSSION

Mobile learning is emerging as one of the solutions to the challenges faced by learning on. With a variety of tools and resources always available, mobile learning provides increased options for the personalization of learning. Mobile learning in classrooms often has students working interdependently, in groups, or individually to solve problems, to work on projects, to meet individual needs, and to allow for student voice and choice.

With access to so much content anytime and anywhere, there are plenty of opportunities for formal and informal learning, both inside and outside the classroom. Study showed that notebooks, mobile Tablets, iPod touch, and iPads are very popular devices for mobile learning because of their cost and availability of apps. They are used for collecting students' responses (clickers), reading electronic books and websites, recording reflections, documenting field trips, collecting and analyzing data, and much more. One of the causes of acceptance mobile learning is that it uses devices:

1. which citizens are used to carrying everywhere with them,
2. which they regard as friendly and personal devices,
3. which are cheap and easy to use,

4. which they use constantly in all walks of life and in a variety of different settings, except education.l

VII. CONCLUSION

The aims of this paper were to reflect on what mobile learning has to offer and to Consider whether it is likely to taught and learnt. The key is to move beyond a superficial understanding of mobile learning which does not give sufficient consideration to how mobility, accompanied by digital, location-aware technologies, changes learning. The revised assessment task enabled students to improve their presentation performance. In addition, students gained skills in peer critique. A key learning from the project is that for mobile technologies to move from the periphery to the center of a learning environment.

Mobile learning has a promising future as a field of study. In related literature, there are many different approaches, theories and practices. The current Mobile learning study field will be more understandable for new researchers if these definitions, approaches and theories are discussed and linked to concrete mobile learning practices.

REFERENCES

- [1] "Guidelines for learning/teaching/tutoring in a mobile environment". *MOBIlearn*. pp. 6, October 2003.
- [2] Taiyu Lin Kinshuk, "Improving mobile learning environments by applying mobile agent technology", Massey University, Palmerstone North, New Zealand, 2004. [Online] Available: http://www.col.org/pcf3/papers/pdfs/kinshuk_lin_2.pdf.
- [3] Mike Sharples, Josie Taylor and GiasemiVavoula, "Towards a Theory of Mobile Learning", *International Journal of Continuing Engineering Education and Life Long Learning*, Vol. 12, No. 5/6, pp. 504-520, 2005.
- [4] A.Herrington and J. Herrington, "What is an authentic learning environment?" In A. Herrington & J. Herrington (Eds.), *authentic learning environments in higher education*, Hershey, PA: ISP, pp. 1-13, 2006.
- [5] N. Maniar, E. Bennett, S. Hand and G. Allan, "The effect of mobile phone screen size on video based learning", *Journal of Software*, Vol. 3, No.4, pp. 51-61, 2008.
- [6] J. Attewell, "Towards sustainable large scale implementation of mobile learning: The mobile learning network (MoLeNET)". In J Traxler, B. Riordan & C. Dennett (Eds.) *The Bridge from text to context. Proceedings of the mLearn 2008 Conference*, University of Wolverhampton, pp. 28-35, 2008.
- [7] Mandeep Singh, "M-Learning: A New Approach to Learn Better". *International Journal of Education and Allied Sciences*, Vol. 2, No. 2, pp. 65-72, 2010.
- [8] Savill, "Mobile learning in practice: Piloting a mobile learning teachers'toolkit in further education colleges. C.Savill etc.", pp. 8, 2010.
- [9] Crescente, Mary Louise and Doris Lee, "Critical issues of M-Learning: design models, adoption processes, and future trends". *Journal of the Chinese Institute of Industrial Engineers* Vol. 28, No. 2, pp. 111-123, 2011.
- [10] Crescente, Mary Louise and Doris Lee, "Critical issues of M-Learning: design models, adoption processes, and future trends". *Journal of the Chinese Institute of Industrial Engineers*, Vol. 28, No. 2, pp. 111-123, 2011.