

Mobile Learning Method: Impact and Academic Achievement

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Abstract - Modern digital learning encompasses e-learning as well as m-learning, which is a subset of e-learning. It's safe to argue that the introduction of mobile learning has changed the e-learning environment as we know it. E-learning is commonly linked with learning on a computer that is connected to the internet. There are various advantages to mobile learning, including the capacity to access learning information at any time, the flexibility to personalize the curriculum to the needs of individual students, and the opportunity to receive immediate feedback. using smartphone apps to study a foreign language can boost university students' performance by including smartphone app learning into a regular review. The needs of students are examined and the data gathered is statistically assessed.

Keywords - Mobile Learning Method, Impact, Academic Achievement and E-learning.

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INTRODUCTION

The global innovation that the world has witnessed in the field of science and technology marks it difficult to remain indifferent to the existence of technology when individuals are whistling the tributes of the many high-tech gadgets that they are using on a daily basis. Oftentimes it's challenging to be a 'non tech-savvy' as an educator at a Higher Education Institution in this technologically advanced era. Emergent technologies have brought about foremost changes in the teaching and learning processes. The extensive usage of Information and Communication Technology (ICT) in the education and training context owe to the rapid development of computer and associated technology. The modern technology has now become possible to interact with one another via online. Therefore; the integration of ICT in teaching and learning have broaden the chances for teachers and students to try in an information era. ICT has the capability to initiate new teaching and learning exercise because ICT acts as a catalyst in the transformation of the education system.¹

Mobile Learning in Higher Education

Education at all levels can benefit from mobile learning, but higher education is particularly important because of its widespread use on college campuses. Student learning styles, particularly in higher education, have been transformed thanks to the pedagogical possibilities offered by mobile devices. Rather than having to sit through lectures in

a traditional classroom setting, students now have the option of listening to lectures live, recording them, or even downloading them as podcasts to watch at their own convenience. Some LMSs, such as "Blackboard," "Moodle," "E-class" and Sakai" or other LMSs supplied by their universities allow students to download printed materials and additional learning tools. The advent of new and related ideas, including as e-learning, flipped classrooms, innovation improved learning and mobile learning, has distinguished the last decade. Mobile learning is gaining traction, thanks in part to the widespread adoption of Smartphone's and other mobile devices across a wide range of socioeconomic strata.² Mobile learning, according to Jill Attewell, can get to locations where other methods of education can't. It empowers and increases the desire to learn, even after the initial 'gadget honeymoon' period has over. As a result, mobile learning isn't just about the cool features it offers; it's also about the way it engages and motivates students pedagogically.

M-Learning in teacher education

An emphasis on technological knowledge (what the gadget can accomplish and how to utilize it) as well as instructional understanding is advised by research (how this is done through the development and deployment of appropriate teaching and learning activities). Education professionals who want to make use of these devices must think about how they might be able to expand the learning environment beyond the

classroom due to their portability. These gadgets include a wide range of useful features that make it easier for people to communicate, learn, and teach. Handheld gadgets have been used in the past by a number of institutions to assist students with unique communication requirements.³

It's not uncommon for teachers to incorporate mobile devices into their lesson plans as a way to encourage students to conduct research, take pictures and videos, present their work to their colleagues and professors, record and share their own thoughts, solicit anonymous feedback, and analyze their peers' and professors' work for strengths and weaknesses.

Pedagogical Benefits of M-Learning

There are several ways in which mobile technology may enhance the benefits of pedagogies like inquiry learning, self-directed learning, and formative evaluation, and this is only one of many ways in which it can be used. On the plus side, students may utilize mobile devices to access classroom materials and portable data probes to gather and analyze data during homework, field excursions, and museum visits⁴

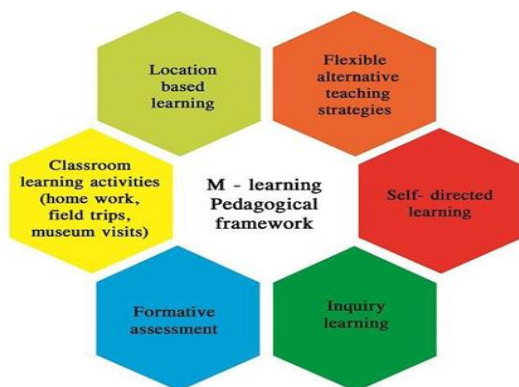


Figure 1: Pedagogical framework of m-learning

Some of the most popular mobile devices that may be used for m-learning include mobile devices such as Mp3 players and notebook computers. Mobile apps have grown in popularity and are rapidly being used by mobile users since the debut of smart phones. Mobile phones provide a wide range of capabilities, including voice, SMS, surfing, downloading, gaming, and more.

M- Learning Supreme for Distance Learners

Using mobile apps like Facebook and Twitter, online students may collaborate and share information with one other. Mobile educational technology enables online students to communicate and share their knowledge. Students can use computers or mobile devices to create and exchange information and knowledge for learning, and educational mobile technologies have arisen and show tremendous promise. Formal and informal education may both

benefit from mobile devices in remote learning, who argue that mobile devices are best employed for M-learning that is both located and real.⁵

Mobile In And Out Of Teaching Space

There was a pressing demand for learning outside the classroom, and m-learning was born as a response. There are several advantages to using m-learning over traditional schooling. For example, students can access educational materials, engage with others, or produce content using their mobile devices both in and outside of the classroom. Access to educational resources on the Internet is made easier with m-learning, as is the creation of engaging instructional materials that may be utilized in and out of the classroom. As a result, many classes around the country are experimenting with the strategy. Students' social interactions in collaborative learning environments are the primary means through which they learn. The majority of these social contacts take place on social media platforms.

M-Learning in Teacher Education

Technology, content and pedagogical knowledge all need to be integrated into teacher education in order for teachers to become proficient in the use of the devices and their applications (how this is done through the development and deployment of appropriate teaching and learning activities). When teaching with mobile devices, teachers must consider how the classroom might be extended beyond the classroom. The design elements of these gadgets are particularly suited to aspects of communication and education. It has already been proven that mobile devices may aid kids with special communication needs.

Framework for Interrogating M-Learning

Many apps (Apps) need to be identified to fulfill the individual demands of different subjects and topics during teacher education events. This means that teachers, as well as students, must understand both the positive aspects and negative aspects of using mobile devices for educational purposes. Aspects of teacher education that should be investigated include:⁶

- **Think forward:** classrooms where students use the Internet to discover future subject information, gather relevant thoughts and ideas, and express them in class or via online discussion
- **Listen to my explanations:** a system in which students record audio explanations of their homework assignments, which teachers then listen to and grade.
- **Snap and show:** Students create images that are uploaded to a server and made

available to other students; Parents may also be able to observe and discuss activities at their child's school via the webcams.

- ***This is what I've done and how I've done it:*** This enables students to film and make available to instructors and parents presentations about how they have utilized mobile devices to solve certain tasks. With the help of other students and recordings of your own voice, you may construct a multimodal "text" that includes not just written language but also audio.
- ***Tell me how I could improve this:*** Teachers, mentors, and other trustworthy adults can see and comment on multimedia projects created by students, as well as provide constructive feedback and suggestions for improvement.

The Potential Use of M-Learning in Education

Mobile learning has the potential to improve teacher preparation programs. Cooperative learning, contextual, constructivist, and genuine learning are all examples of this. Among other advantages are personalization/individuality, increased cooperation, access to knowledge, and richer contextualization of learning. M-learning has to be designed in a way that allows for smooth and ubiquitous learning experiences.⁷

Teacher attitudes demonstrate that some instructors are enthusiastic about using technology, while others are completely opposed to it. It appears that this is due to a lack of ability to adjust to new circumstances, as stated by Isaacs (2012). Therefore, the desire and confidence to use mobile technologies in teaching and remote learning can only come from having access to ICT equipment and processing the necessary ICT skills. " With the fast advancement of new mobile goods and their sophisticated functionalities and countless apps and accessories, the technological constraints of mobile devices may only be a short-term problem.

For instructors in the twenty-first century, it is essential that they have faith in their own technological abilities. When it comes to successfully using m-learning, there are five things to keep in mind:

- Access to technology is a need
- Having control over the technology
- Connectivity
- Teaching and learning through the use of mobile devices

- Providing training and technical help

Teachers should be able to use current technology, but they should also be able to manage new and evolving technologies in a methodical and analytical manner. In order to attain the highest possible synergy in pedagogical quality, existing technology must be merged with future technology. Educators must be prepared to work on the development of these in the near future. There must be a new system of teacher education in order for the profession to identify itself in the current era the need for universities to educate future teachers for the inevitable changes in technology and teaching methods cannot be overstated.⁸

Mobile Learning as a Subject of Research

Today mobile learning is an extremely fast growing domain. Its popularity among the researchers, academicians is evident as it is now a specialized field with its subject-domain growing steadily and new developments in the field being reported frequently. Another important parameter of its popularity is the growing number of international conferences, seminars and workshops dedicated specially to the subject of mobile learning. For example, it is one of the key themes of the "EDUCAUSE" which is a "National Learning Infrastructure Initiative" undertaken by US government. The first mobile learning conference 'M-Learn' started in year 2002 in USA. The other prominent conferences dedicated to mobile learning are: "International Conference on Interactive Mobile and Computer Aided Learning (IMCL); International Workshop on Mobile and Wireless Technologies in Education (WMTE); Mobile Learning and Edutainment Conference; International Association for Development of the Information Society (IADIS); The Social Science of Mobile Learning; International Conference on Mobile Learning: New Frontiers and Challenges (ICML); International Conference on Systems (ICONS)". These conferences are held annually across the globe. The research papers presented at these conferences have provided some key and useful insights regarding mobile learning.⁹

The field has garnered interest not only from researchers and scholars but from the academic communities at all levels, whether pre-primary, primary, secondary or tertiary education. The growth of number of journals (for example, "International Journal of Mobile Learning and Organization", "International Journal of Interactive Mobile Technologies", "International Journal of Mobile and Blended Learning") dedicated to the subject of mobile learning, indicates its growing importance for educators, learners, institutions and organizations that provide mobile learning solutions and products such as educational applications.

Pedagogical Affordances of Mobile Devices

At Handheld Learning Conference in 2009 Ray Kurzweil, an inventor, thinker and futurist aptly remarked that "mobile phones are misnamed they should be called 'gateways to all human knowledge.'" Mobile technologies continue to awe the world by their unimaginable capabilities. They've become vital instruments for a wide range of jobs, notably in education, thanks to their decreasing size and increasing processing power. Learners should be aware of the features of mobile technology and smartphones, such as long battery lives, touch screens with millions of applications, a wide range of communication options (phone calls, video conferencing, text messaging, social networking, and email access), and a relatively high computing power.¹⁰

Mobile learning increases student's engagement level as they enjoy their interaction with their mobile devices. The various features that make mobile devices considerably superior to other technologies include wireless connectivity of the devices which make them ubiquitous tools for learning; users' awareness of various functionalities and capabilities of mobile devices; multimodal capabilities of devices, familiarity of using the device; the relevance and their personal nature.

The NET Generation

According to Worley (2011) and others, many of today's college students are members of the so-called "Net Generation," which poses a dilemma for academics and administration. In the digital age, the Net Generation or Digital Natives were born because of their unique cognitive development compared to earlier generations.

Today's pupils, according to Prensky (2001), are fluent in a digital language that includes computers, video games, and the Internet. The use of technology in school will be a major barrier to Net Gen learning. Faculty in today's technologically enhanced world must be able to accommodate students' technical requirements. There has been a paradigm change from the emphasis on teaching to the emphasis on learning, and traditional methods of education will no longer be successful.

Learning, rather than imparting knowledge, is at the heart of the new educational model. Teachers aren't only lecturers; they need to develop learning techniques and surroundings as well as teach. Faculty members need to be aware of these distinctions and ready to adapt their teaching methods and beliefs to a new generation of students. Students from the Net Generation have unique characteristics that can be used to help them learn in school. They like to work in groups, do not respond well to lectures, and communicate ineffectively.¹¹

Advancement in the Domain of Learning

Personal digital assistants and mobile phones have become a powerful learning tool in both the classroom and beyond the classroom, and this trend is expected to continue. The ability to access learning resources at any time, in any format, and from any location has the potential to increase deep student learning and empower students to develop their own knowledge. A new branch of study called m-learning aims to improve the learning process by utilizing mobile devices like smartphones, tablets and mp3 players, as well as smartwatches and glasses in the future. The phrase "anywhere, at any moment" has become a catchphrase for so many people. The utility of mobile technology is its ubiquity, which is seen as omnipresence. However, it is the more subtle issue of mobile learning that is its most noticeable aspect.

Whatsapp Mobile Learning As a Mobile Technology

A smartphone application designed for instant messaging, WhatsApp is what it takes to be. WhatsApp was found to be the most popular messaging app among college and university students from a list of rival social networking services. The app's popularity has skyrocketed recently. WhatsApp's capacity to increase group communication is a big advantage. It enables mobile users to send and receive real-time text messages, as well as photographs, videos, and audio media communications, among people or a group of friends concurrently and at no charge. Most individuals, especially teenagers and adults who are still in school, utilize WhatsApp to stay in touch and stay connected. College students use it the most as a tool for implementation since it is the most widely used messaging program.¹²

It is no surprise that so many students are ready to utilize texting and instant messaging as a method for academic communication. The "communication hub" for social networking, WhatsApp has transformed the way people interact. Composing and transmitting brief electronic messages between two or more mobile phones via a phone network is known as text messaging (or SMS for short). Through this software, kids were able to connect with one another and share knowledge while also forming social groups. Members can participate in discussion forums since there is no restriction on the number of messages they can send.¹³

Mobile Learning in Escalating Skills

Students who might not have had access to traditional basic computer classes might benefit from the social networking technology's enhancement of their computer abilities.. Self-help lessons that are freely available on the internet have facilitated a growth in user-generated content

as a result of the rise of social media technologies. Students' ability to communicate, use technology, and conduct research are all boosted thanks to social media. That students' life experiences, knowledge, and abilities grow over time is evidence that social media tools have a good impact outside of the classroom. Social media in education would need students to take charge by contributing and generating information rather than just consuming it, in order to support their own personal life objectives and requirements.¹⁴

Participating in and making use of such technologies might help students improve their technical abilities. Non-English speaking students can considerably enhance their English language abilities via trading. WhatsApp allows students to communicate with their friends and professors in a pleasant and fast-paced way.¹⁵

CONCLUSION

Many academics are interested in employing mobile devices in educational settings as they become more widespread in today's digital environment. These devices have an influence on a variety of areas of customers' daily lives. Until recently, digital technology was mostly utilized for social communication, and few people thought of m-learning as a key instructional activity in higher education. The use of smartphones, tablets, phablets, netbooks, and laptops as learning devices is known as mobile learning (M-learning). Students, on the other hand, will find m-learning more convenient since they may learn at any time and from any location. M-learning is a crucial new tool for teaching and learning since mobile devices have become an integral part of students' daily life. M-learning aims to promote informal, self-directed, and collaborative learning. Education has progressed and changed with the assistance of social networking tools. Students are increasingly looking to technological improvements to better their academic performance.

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