

## **Effectiveness of Mobile Learning for Academic Progress of MS Education Students: A Case Study of Distance Learning Program at IIUI**

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### **Abstract**

Mobile learning plays a pivotal role in the students' academic progress. Main objectives of this article were to examine the effectiveness of mobile learning in view of students' academic progress, to describe the students' preference for mobile learning, to examine the scope of use mobile learning by distance learners. The study was qualitative in nature and descriptive. Population of the study was all distance learners of International Islamic University, Islamabad (IIUI). Sample for the study was MS Education distance learners. The tool used for data collection was open ended questionnaire. Collected data were then analyzed and interpreted using thematic method. Findings of the study indicate that mobile learning is an effective tool used by students of all ages for improving communication and learning and this device enable students to take guidance or to get current information regarding their courses and exams easily but this fact also prove by the study that some students were unaware of this concept. It is recommended that guidance is needed for both teachers and students regarding various shapes of mobile learning along with conducting training sessions to bring awareness in students and to highlight its importance.

**Keywords:** effectiveness, mobile learning, academic progress, accessibility, collaborative learning.

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**Introduction**

Education is the practice of creating an atmosphere of learning ("Definition of Education by different authors", 2019). Learning can be open, online virtual, flexible or distance ("Distance education", 2019). Important elements of education are students, teacher, books and teaching learning strategies. Learning strategies or tools are also known as educational indicators which plays an important role in making teaching learning process effective. Traditional educational tools of teaching learning were discussion, lecture, lecture demonstration and some others (Dewey, 1916, pp.1-4).

Traditional methods have been replaced by modern technological tools. Traditional teaching methods were, reading texts and problems, attending lectures, monitor discussions, solving short or lengthy unstructured problems etc (Dimitrios, Labros, Nikolaos, Maria & Athanasios, 2013). Some of the aspects of traditional classroom are gone and things such as applications, computers, interactive blackboards and the Internet are actively used in teaching (Ragin, 2019).

Distance educators make use of different technological tools for learning in which the most common for all students is mobile technology. The application of mobile technology for learning purposes or the stipulation of learning and teaching on mobile devices such as Personal Digital Assistants (PDAs), smart phones and learning by utilizing mobile phones is known as mobile learning. Mobile technology put forward the suitable learning environment to support indoor and outdoor classroom activities as well as to assist students for easy and flexible access to learning materials, teacher and their class fellows. Mobile learning plays a pivotal role in the effectiveness of students' academic progress. (Yousuf, 2007).

The study has been designed to discover the effectiveness of mobile learning on students' academic progress and bring awareness in students, teachers and practitioners to practically implement mobile learning in academic settings according to the needs and demands of teachers, students and society.

This study will contribute to the innovative use of mobile technology for all distance as well as conventional learner's academic progress. This study will be helpful for students, teachers and practitioners to get awareness of the effectiveness of mobile learning for distance learners.

### **Literature Review**

Yusuf (2007) define mobile learning as mentioned by Harris (2001) the ability to enjoy an educational moment from a cell phone or a personal digital assistant. Yusuf (2007) further indicated that mobile tool is “flexible access” technology for distance learners because this technology can be used anywhere and anytime and its usage is easy access to distance learners. Such flexibility has a major pedagogical benefit for distance learners as this flexible access technology can provide helps in the provision of course content and feedback to off-campus students and also help in linking students to peers, tutors, and their institutions. He also stated that this technology without internet access plays a pivotal role in communication and collaboration with students if sometimes a lecture or similar activity has to be cancelled so students are informed by SMS.

Yang and Lin (2010) also described the importance of the application of mobile technology into classrooms that mobile as learning tool support teaching and learning as well as engage students in learning activities such as exploring and organizing online course-related resources, as well as answering quizzes by means of group discussion using their mobile devices. Mobile technology facilitates group collaborative learning. In a Mobile Computer Supported Collaborative Learning activity, students engaged in collaborative learning through face-to-face communication on a social network with the support of handheld devices by a wireless network.

Al Fahad (2009) stated in his study of “student’s attitude and perceptions towards the effectiveness of mobile learning in king Saud University”, that Mobile technologies are perceived as an effective tool in improving communication and learning. In developing countries like Saudi Arabia, where WAP and PDA – based mobile technologies are not yet popular due to the cost involved in owning and using such higher-end mobile technologies, less expensive SMS-based mobile technologies such as mobile phones do hold tremendous potential which can be strategically used to support and improve student relation. He found unawareness in students regarding mobile learning and some do not have ownership of personal mobile to use for learning purposes but as whole findings show that mobile learning is best learning concept and can provide good support to micro learning.

Miller & Cuevas (2017) found in an experimental study on mobile learning and its effects on academic achievement and student motivation in middle grades that there was significant difference in interest and academic motivation of students as compare to paper learning students

but no difference was found in their academic achievement in paper and mobile learning students.

Vyas and Nirban (2014) conducted a study on student's perception on the effectiveness of mobile learning in an institutional context in which they found 59% students who were aware about the definition of mobile learning as portable device for learning. They discovered that 84% students used laptops for learning purposes whereas 64% students were found who used smart phones for learning. I-pads and tablets were in use of 16% students at university level.

Deb (2011) found problems faced by distance learners mostly in developing countries with the exception of Bangladesh open university where extensive network for distance learnings through technologies such as TV, mobile's short message service and tuition based on the use of ICT were found appropriately. Mobile technology was suggested as an important portable media for benefiting distance learners.

Cherian & Williams (2008) described in a study on mobile learning that it is an important educational platform. Another study was conducted by Mileva on the effectiveness of mobile learning in the form of performance support system in higher education in which it was found that mobile device is more effective than e-learning in providing information to student when they needed. Furthermore, this study revealed that mobile device for learning is more motivating and helpful.

Zidoun and et al (2016) conducted a survey on student's perception about mobile learning in morocco in which they found that students mostly used smart phones, laptop and tablets. Most students showed their positivity about using mobile for learning. The mostly used mobile services for learning purposes by students were text messaging, android and social media. All such studies match findings of our study which revealed that mobile is an effective tool for learning if used positively for learning and knowledge purposes.

## Conceptual framework

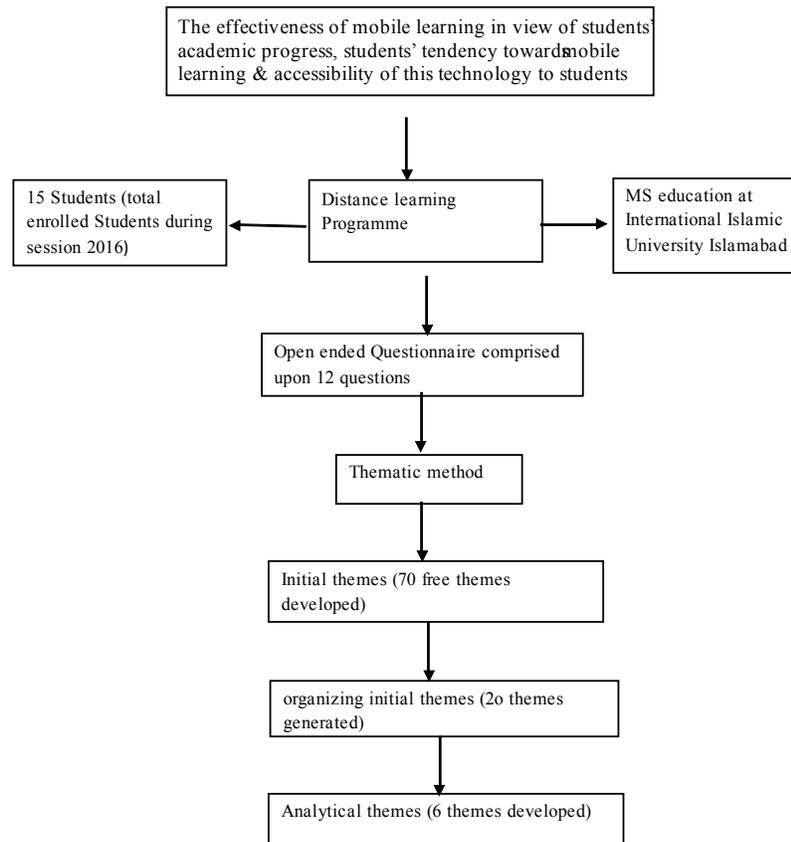


Figure 1. Conceptual framework of the Study

### Objectives of the Study

The objectives of the study are:

1. To examine the effectiveness of mobile learning in view of students' academic progress.
2. To find out students' tendency towards mobile learning.
3. To find out accessibility of this technology to students.

### Research Questions

1. What is student's perception about the effectiveness of mobile as learning tool?

2. How mobile learning helps students in improving their academic progress?
3. What kind of apps students used for learning and for connecting with teachers and class fellows?
4. Are students satisfied regarding the access to social network through mobile phones?

### **Research Methodology**

Qualitative research is a means for exploring and understanding the meaning individuals or groups give to a social or human problem. This process involves emerging questions and procedures, data collected in the participant's setting, data analysis inductively building from particulars to general themes and the researcher making interpretations of the meaning of the data. Case studies are qualitative research strategies for exploring and collecting in depth programs and activities of individuals (Creswell, 2009).

This study was Qualitative in nature and a case study was designed. The study was delimited to MS Education Programme of Distance learning at International Islamic University Islamabad. The population of the study included all the distance learners of International Islamic University Islamabad. Sample of the study were all distance learners of MS Education who were total 15 in number (male and female). So sample of the study was purposive intent to select "small" not necessarily representative but in order to acquire in depth understanding (Gay, 1997).

### **Instrumentation**

Open ended questionnaire was prepared for data collection from the students included in the sample. There were 12 statements for the analysis of which thematic method was used by the researchers.

### **Data Collection**

Data were collected through mobile technology by Email, text and personal contact with distance learners and then was analyzed. The researcher collected data through open ended questionnaire and coded all the responses given by participant. There were 12 questions which were answered.

### **Data Analysis**

The researchers used three stages of thematic method such as line by line coding then organized the free codes for constructing descriptive themes and finally develops analytical themes.

**First stage: Initial coding /Line by line coding** Line by line coding of the given responses by participants produced summary of data which was interesting for the researcher.<sup>70</sup> Free codes were developed from the primary data.

### **Second stage: Organizing free codes for constructing descriptive themes**

At the second stage the researcher organized all the responses of the participants in a way that all the same responses were putted in sentence form which provide an organized shape to free codes.<sup>20</sup> codes were developed at this stage. On the basis of this stage descriptive /analytical themes emerged.

### **Third Stage: Analytical Themes**

Third stage of coding data was developed on the basis of organized themes and five descriptive /analytical themes with sub themes were emerged which provide a gateway for findings and results of the study. Such themes are interpreted by the researcher on the basis of all responses given by the participants of the study. 6 analytical themes with sub themes were generated at this stage.

### **Findings**

#### **Theme I: *Mobile as an effective learning tool improving student's academic progress***

Findings of the study indicates that mobile with internet connection is an effective technology for improving students' academic progress, if used according to teaching learning situation and requirements. Access to different sites on mobile provide great help in improving students learning such as dictionary app help in improving vocabulary by finding out meaning of different words, watching and listening different lectures improve presentations skills, finding out articles and pdf files provide updated and authentic information, digital textbooks keep students organize. This technology allows students for easy access to the latest news, information and statistics which improve general and arithmetic knowledge as well as students can easily do preparation for exams from their downloaded lectures and learning materials.

**Global Knowledge**

Mobile technology is an easy and quick source accessibility to which can help in gaining a lot of information within one touch by connecting and communicating with informative sites and knowledgeable individuals. Mobile technology with internet connection provide knowledge about career paths and help in collaborative learning.

**Enhance Communication Skills****Collaborative Learning**

Mobile technology was found for improving their academic progress and enhancing their communication skills as well as help in collaborative learning. Communication with knowledgeable individuals helps in enhancing communication skills and in gaining collaborative learning. Mobile learning enhances communication skills among students and teachers. Mobile learning quite helpful in academic progress because using this technology student communicate with each other, share valuable information regarding their assignments, quizzes, course contents which make easy their study. Students connect and communicate with teachers using various mobile apps such as Facebook, twitter, skype, viber, WhatsApp, email, linkeldlin, text messages and direct mobile calls.

**Productivity and effectiveness depend upon users**

Positive use of mobile is an effective tool for gaining knowledge. Different programs can be used for learning purposes; dictionaries; online books connection of net further make more fruitful but all depend on the user. All the apps of mobile are productive but depend on the users how they are using.

**Theme II: *Accessibility of students to different kinds of mobile apps for learning***

Students have access to various applications, but some students have no access and they face difficulty in access. Students use mobile technology according to their need and requirements. Some students two time per day and some students 20+ per day according to their needs of study and as well as according to communication requirement with class fellows and teachers.

### **Commonly used apps by students**

Majority of the Students use text messages, WhatsApp, Facebook, email, to connect with friends and teachers. Facebook, LMS, WhatsApp, text messages, direct mobile calls, email. Google, adobe reader dictionary and general knowledge, Skype were found the most commonly used apps by distance learners for communication and learning purposes.

### **Apps used by little students**

Two students prefer laptop due to thesis writing and making assignments. Two students were found who used mobile technology just for connecting with friends and teachers for updating their and were not aware of other apps for learning purposes. Some students prefer laptop as best because they argue that we cannot write our thesis or assignments using mobile. Sometimes create disturbance if use not according to needs and demands.

### **Most effective apps of mobile technology improving academic progress**

Students described WhatsApp and face book the more effective as face book connect them to known as well as unknown and on WhatsApp teachers share updated and valuable information which help students in their studies, meetings and important events etc.

Mostly students preferred mobile than laptop. Most effective app of mobile technology for effective learning described by distance learners were Google as it's all about world, face book, WhatsApp, internet application, skype classes, LMS, adobe reader, dictionary and app of general knowledge.

Students preferred goggle as it's all about world, WhatsApp and LMS the most effective as teachers used for updating their knowledge and share them valuables information as well as book links for study purpose as well as face book which help them to connect with known and unknown for gaining knowledge.

**Theme III: Students satisfaction and comfortability level using mobile for learning****Fast connection****Updating everywhere**

Comfortability and satisfaction were found in students using mobile technology for improving their academic progress. Students prefer mobile technology due to its portability, easily accessible everywhere anytime, quick and light in weight. Students feel comfortable while using mobile for learning as it helps them a lot in updating them everywhere due to its fast connection.

**Theme IV: Awareness of students regarding mobile technology for learning and need of guidance**

Mostly students were aware of different mobile apps for learning purposes. Their teachers guide them little bit to use LMS, WhatsApp and Skype for overcoming learning difficulties but some students having no awareness of different apps of mobile technology for study purposes.

**Need of distance learning and Alternative to textbook**

Reasons for using mobile technology for study purpose described by students as; the need of distance learning, easy, economical, productive, alternative to textbooks, learning goes outside classroom. Student preferred mobile technology instead of laptop due to its portable and light weight, small size, easy access to all apps, carrying it easily and anytime and its use in the classroom according to learning needs. Mobile technology replaced laptop currently but some modifications needs.

**Theme V: Difficulty faced by some students from mobile learning****Skype classes****Lack of signals****Charging issue**

Students faced difficulty in Skype classes, lack of signals, and charging goes down.

**Theme VI: Students' Suggestions**

Students demands for avoiding ads in educational websites and mobile use for face book as well as demanded for successful Skype

classes under special guidance of teachers. Students also suggested mobile learning at secondary level under teacher's guidance. Free and fast browsing is needed to make it perfect. It is very effective and easy tool now a day, I suggest everyone must get benefit from such precious technology. Proper guidance and more successful Skype classes should be provided. Use it if you need otherwise don't crap your time in mobile usage. Teacher may conduct and arrange guidance programs for effective use of mobile for learning.

### **Conclusion**

The study was conducted for achieving the objectives; to examine the effectiveness of mobile learning in view of students' academic progress to find out students' tendency towards mobile learning and to find out accessibility of this technology to students which were achieved through open ended questionnaire from the participants. Results of the study revealed that mobile is an effective tool for learning, and they got knowledge and information through the use of this technology. The study found that its effectiveness depends upon users besides students were satisfied by getting valuable information through this.

This study investigated MS Education distance learner's preferences regarding mobile as learning tool and its effectiveness on students' academic progress. The researchers have analyzed the answers to qualitative questions for in depth understanding of student's preferences, kinds of apps used for learning and their point of view regarding more effective apps for effective learning and communication with their teachers and class fellows. Mobile learning perceived in student's views as secretary, vital tool for learning, mini laptop, alternative to textbooks, helpful in outside classroom learning. Mobile learning improves vocabulary, presentations, communication and collaborative skills in students and enable them to connect with their friends and teachers as well as world.

Guidance is needed for students regarding various apps of mobile technology for learning along with conducting training sessions for teachers to bring awareness in students and to highlight its importance. Alternative may be there in case of network problem which disturb

connection and learning process. Mobile phones may not be used in any manner that is disruptive to the normal routine of academic atmosphere. Mobile manufacturers should voluntarily solve the technical problems which disturb students learning. Special attention may be given to make Skype classes successful. Mobile learning as learning strategy may be implemented. Mobile learning may also be encouraging at school level under guidance of teachers according to teaching learning needs and in order to prepare students for collaborative learning and improve their communication skills. Further researches may be conducted in different levels of students. Another research may be conducted utilizing longitudinal method on effectiveness of mobiles for academic or social objectives.

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