



**Exploring University Students Perceptions about Using  
Mobile Phone as Learning Aid**

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**Abstract**

This study examined the perception of students' in using mobile phones as a learning aid within universities in Karachi. The prime objective of the study was to evaluate the student's readiness and acceptance in incorporating m-learning in their learning process. For this purpose data was collected from different universities in Karachi aged between 22-40 years with a sample size of N=204. To test the data Mobile learning survey was used, consisted of 16 items with a Likert response scale providing ranges from 1-5 from strongly disagree to strongly agree, followed by asking their ability to use their phones for educational purposes and later captivating their idea of mobile phones integration into their classrooms. Results of the study showed that students' spent plenty of time on their cell phones and they use it for a variety of applications. The results also indicated that they knew almost all of its function and were using them in their daily lives. They were already using their mobile phones for retrieval of information and according to them it had removed learning barriers. However students' were not sure if m-learning should be incorporated into their classrooms.

Keywords: mobile learning, e-learning, web based learning

### **Introduction**

The most wide-spreading, accessible, and modern development in this recent era has been the rapid growth of mobile technology and cellular device users. Cell phones and mobile technology has brought tremendous revolutionary changes in this era and to a wider extent has influenced the traditional means of communication. The rapid use of mobile phone and development of technology is escalating to an extent that the population of the planet reaches to 6.8 billion out of which 4 billion own mobile phones (Conner, 2013). Consequently, there has been a regular up gradation of this technology since supplementary new features are added to the mobile device each day making it as the “next form of portable computers” (Larry Johnson, 2008). Mobiles are regarded as a less expensive and smaller forms of laptops in terms of available applications and their handy nature. In U.S. usage of phones increases by 50% from 2011 to 2012 and adding to it there are four times more mobile phone owners than computer owners (Kent, 2012). According to a report from UNESCO, it is discovered that mobile phones are not only used as a communicating tool, but was also found to contribute in enhanced literacy ratio around the globe, especially among females (Telbis, 2014). In the recent times, the use of technology for learning purposes within the university grounds has flourished massively (Motiwalla, 2007). This includes internet, intranet, extranet, multimedia devices, email, and automated tutoring systems. Evolved from e-learning, mobile learning is considering being the next substantial development in academic settings (Tiong Goh, 2006). Use of mobile technology is more dominant in higher educational settings and educators should and must hold and take advantage of this revolutionary technology in order to remain updated (Bali, 2013). The relationship exists between the wireless phone and its user, is one-one, location conscious and custom-made (Kevin Wood, 2003) therefore it is quite beneficial for students instructors to utilize their free time in preparing notes or lectures on the go (Maria Virvou, 2005).

Mobile phone usage has both positive and negative impacts at the same time and according to a few researchers youth is the most influenced group of using cellular phone (Ito, 2005),(Thulin & Vilhelmson, 2007), (Ling, 2000). Tracy stated that times tells us the about a lot of young men's, both irresponsible and adventurous at the same time, which resulted few of them in great noble and the remaining in great evil (Tracy, 2006).

Campbell in his research study highlighted some positive effects of mobilephone usage on students' performance in higher education. According to him student's browse internet for useful academic information, to access dictionary or thesaurus on the go and also to keep themselves updated with the current development. Use of mobile phones helps them to stay connected with theirinstructors or fellows for the solution of academic glitches(Campbell, 2006).

There alsoexists some negative impacts of it. According to (Muhammad Javid, 2011) it is the most disturbing tool for university students while they are sitting in the classroom and attending their classes. Being connected to the phone most of the time, students could lose their focus from studies. He added that while using their phones most of the time they could also lose the phone which might result in affecting their studies. Mobile phones is also described as the major factor behind declining moral values in his research study, as students' can easily lie to their parents and teachers about being in library while sitting somewhere else.

These days, university life of student's is incomplete without the flavour of technology in it. While some universities still using the conventional technologies like intranet, emails, and portals others are breaking their grounds by doing more innovative activities and interventions. They have acknowledged that the best way to approach their tech-savvy students in today's digital world is to get there where they already are; on smartphones. They are designing new apps to be used within campus premises which provide learning and campus information at the same time. University administration finds that it's convenient to stay connected with their student's all the time through the use of smart phones. Use of mobile technology within the campus

has made campus life easier and safer for students' (Christine Armatas, 2005); former in the sense that it allows students' to get updated about the latest campus developments, university events calendar, and find locations like classroom or instructors room; later part involves the security features in campus mobile apps like students can even send the danger alert to campus security staff including details of their current location (Universities Using Technologies, 2012). Despite of the several advantages students and university stakeholders are getting from the wireless phones, there are still many disadvantages of it due to which many universities have banned the device within the university campus. According to them it is one of the major sources of nuisance in the classroom. Although it is a tool used for security of students' but it is also turning out to be a potential threat in exam halls. Student's uses them in their exams for unfair means by searching the information online, disseminating the pictures of exams taken from phones, or even texting solutions to class fellows during the exam (Katz, 2005). Another disadvantage that is observed in a study, conducted in the US, is that every one out of three student's play games on their cell phones while attending class (Gilroy, 2004). Pakistan has such a high user rate of mobile phones and ranks 5<sup>th</sup> in Asia (APP, 2011). The statistics published by Pakistan Telecom Authority, at the end of May 2014, shown that Pakistan cross the figure of 139.2 million users (Attaa, 2014). Also the author reveals that 77% of smartphone users aged between 21-30 years which shows that how much the youth are into mobile phones.

Based on the above lines of research, the core object of this study is to discover the perception of students and educationalists about the mobile phone usage in university settings of Karachi and how it influences the student's academic satisfaction.

### **Literature Review**

Mobile phones have become a necessity more than a luxury now. It has changed the way of communication has been done earlier. It silently penetrates into our lives and now holds a significant place into our

lives. Around the globe, six billion people out of seven are mobile phone subscribers (Tsao, 2013). Many of us can't imagine our lives without having a cell phone run the businesses of life(Contributor, 2011). It is more than a communicating tool now.

Mobile phones act as a complete caretaker of yours. From waking you up early in the morning to make you remember the coming birthdays, meetings, everyday jobs, etc. It is a device which acts as an intermediary between a human and his social life and so we are quite helpless without it (Steve, 2013).

In a research study it was found that though adoption of wireless telephony is faster than any other thing in the world therefore causing some societal pains. Some users are highly passionate about its prospects and eager to get involved in it more and more. But at the same time some are still doubtful and questioning about its flexibility and social benefits. It was also found that incorporation of the mobile technology into one's routine life is a process of exploring it more and more(Palen, Salzman, & Youngs, 2001).

Grounded in mobile phones, the upcoming generation of e-Learning is m-Learning. m-Learning has been defined by many authors in different ways. The use of PDAs, Laptops, and smart phones to expedite the practice of learning and teaching is known as m-Learning(Muhanna & Abu-Al-Sha'r, 2009); m-Learning is described as a learning which is not fixed, location dependent or which is carried out by using some mobile technologies (O'Malley, et al., 2005); Learning takes place through a mobile device (Trifonova, 2003); The new form of learning, with the help of mobile devices, has enabled the process of learning everywhere and all the time (Georgiev, Georgiev, & Smrikarov, 2004); The practice of mobile phone usage to access the learning material and to enhance learning (Ally, 2009); Any educational activity where, the key or leading technology is a handheld device (Traxler, 2007)

Both educational and technological platforms have come together to set a foundation of creating a new environment of handheld learning. The newly innovated technologies are designed to tailor to the needs of an individual. So goes with the learning which is getting more

customized and learner-centered each day. It is considered as a positioned and collective activity (Sharples, 2000). Mobile phones are being used by students both formally and informally to enhance their learning. Term formal use associated with the use of mobile as a part of class the while informal use allied with the individual learning. Though m-Learning, at the same time, can complement or disrupt the traditional learning environment (Sharples, Taylor, & Vavoula, Towards a Theory of Mobile Learning, 2005).

According to (Traxler, 2007) m-Learning is not about only mobiles neither it's about learning it is the new trend for bringing a concept of a mobile society. M-Learning has removed the barrier locations and is easily accessible anywhere, anytime.

(Holzinger, Nischelwitzer, & Meisenberger, 2005) identified that mobile phones are widely accepted and adopted in our society and therefore the large number of the population holds their cell phones at hand most of the time. Accordingly m-Learning is considered to be a significant tool for lifetime learning. They further added that m-Learning is just not the replacement for conventional e-Learning and should be taken as an added spice in it.

Among pervasive digital technologies, m-Learning is just started to offer great new technical proficiencies in education (Peng, Su, Chou, & Tsai, 2009). Eventually, this increase in computing skills will accomplish the goal of unbiased access, thus boost the process of collaborative learning and teaching (Kearsley, 1999); (DiGiano, Yarnall, Patton, Roschelle, & Tatar, 2002).

Due to the wide acceptance of this type of learning, universities intend to use this in their settings. Universities based their services on the high performance use of information and communication technologies therefore they can easily manage to provide their services, course materials or information outside the conventional learning space (Osman, El-Hussein, & Cronje, 2010). This is getting more and more acceptable and gratitude among higher education learners each day. A survey was carried out in the University of Birmingham to test the trial of a mobile learning organizer for university students. The basic aim of the study focused on exploring the key elements of such mobile

learning devices. The organizer was committed to provide communication and content access while removing time barriers. The study found that students are clearly of the view that universities should provide a mobile learning platform. In order to implement mobile technology wireless connectivity is the basic requirement in the usage of the organizer. Hardware and software have a significant impact on the consumption and students satisfaction (Corlett, Sharples, Chan, & Bull, 2004).

Global Students Perceptions:

(Aamri & Suleiman, 2011) presented a study, subject to Sultan Qaboos university in Muscat. They evaluated that use of mobile phones as a learning tool is still limited and that students are more into using the technology but teachers discourages them to do so. Teachers are of the view that this will distract both teachers and students.

A similar study was carried out in Malaysian universities to explore the willingness, implied skills, psychological and economic impact of students towards mobile learning. An online survey was conducted to collect the data. The results of the study showed that students are ready to welcome this new learning trend and they are quite skilled to integrate the technology in learning. However, they are uncertain about the inferred cost involved in adopting the technology (Hussain, Manap, Amir, & Krish, 2012).

A study at King Saud University, Saudi Arabia, proved that m-Learning could possibly be the strategy to retain under-grad and graduate students. The biggest pro of using it is its timeless and boundary less usage, which intends to improve the students experience in their open learning (Fahad, 2009).

In Network Education College of China it was explored through the collected data that m-Learning could possibly the technology that holds students' attention and commitment to their education. Through the analyzing of the data they further added that this technology has changed the students being passive learners into active learners. M-Learning has truly transformed them and now

emotionally and rationally they are more involved into learning practices (Wang, She, Novak, & Pan, 2009).

According to a research carried out in a Jordanian university, claimed that the acceptability of m-Learning is higher in under grad students than graduate students. They also claimed that there exists a gender difference in the use of mobile devices for learning purposes. Males are more tech savvy than females and thus mobiles have more influence on male's learners than females (Muhanna & Abu-Al-Sha'r, 2009).

#### Local Students Perceptions

As discusses in a research carried out by (Qureshi, Ilyas, Yasmin, & Whitty, 2012) Pakistan has a literacy rate of 57.9% with the population of 170 million and holds 160<sup>th</sup> rank among other countries. Government of Pakistan has taken several measures to incorporate the e-learning culture among Pakistani universities. Among them, one is the establishment of Virtual University.

In Pakistan there is a wide acceptance of mobile phones among college and university students. Several researches are carried out by researchers to study the usage patterns of mobile phones of Pakistani students. One of the research carried out by (Kamran, 2010) unfolded that majority of students are enormously high user of this technology. However a lot needs to be done in the area to fully and solely implementing the mobile learning environment to provide location and time independent learning. Pakistan needs to carry out a 360° shift to transform her system of the traditional learning model to the new networked oriented educational model (Iqbal & Ahmad, 2010).

A small study carried out by (Wains & Mahmood, 2008) in Pakistan has investigated the viability and practicality of cellular technology to educate the distance learners. They found that the technology was useful in both situations. The study further indicated that m-Learning could be very useful as an additional tool to the traditional learning tools in reaching a great number of learners. As m-technology involves usage of varying electronic tools and devices, when used in these situations, it is expected to deliver results across varying geographical locations on time and in a less costly manner.

A survey was conducted by (Iqbal & Qureshi, 2012) in Pakistan to discover the perceptions of students in adopting this new form of



learning. They selected ten universities from Islamabad and Rawalpindi, the twin cities of Pakistan, and concluded that the factors which are influencing the wide acceptability of m-Learning among university student's in Pakistan are its effectiveness, comfort of use, its ability to facilitate. However, they further found that apparent playfulness has less impact on its adaptability.

### **Methodology**

#### **Design**

The design used in the study was quantitative with the survey based approach. This was done considering the purpose of the study which was to explore the perceptions of the university students pertinent to m-learning through mobile phones consequently, exploratory design was considered to be the best fit for this genre of research. Exploratory design of the research is used when the research problem is vague. However this research design is flexible and can easily address what, why, and how types of questions. Since the prime objective of the study was to explore the perceptions and also because the authors were interested to analyse the statistical significance of one variable over another, therefore it was the most preferred design applied by the authors. This design helped researchers in deriving the various components of the phenomenon in general (Berg, 2004).

#### **Participants**

The data were collected from university students aged between 22-40 years. Total sample size chosen was N=204 from different universities. Data was collected from the universities situated in Karachi only. A convenient sampling technique was used to collect the data.

#### **Measures**

- **Demographic Variables**

The demographic form consisted of variables like age and gender. Right after the basic demographic section three additional variables were added to seek the participant affiliation with the university, their usage skills and to inquire about whether they had used the phone for educational purposes ever.

○ Mobile Learning Survey (Pollara, 2011)

A mobile learning survey was used, consisted of 16 items with a Likert response scale providing ranges from 1-5 from strongly disagree to strongly agree, followed by asking their ability to use their phones for educational purposes and later capturing their idea of mobile phones integration into their classrooms. The reliability of this scale on the sample of this study was measured by Cronbach's alpha reliability test, which is the most common tool to measure the reliability of scale.

Procedures

The consent was taken before using the scale from the author. The scale then uploaded to google drive forms. The universities were identified and recognized randomly. Informed consent was pursued from the university students before they were participated into the research. Online questionnaire was given to the students to explore their perceptions about the m-Learning through mobile devices. After taking their consent a brief introduction was given to the students about the research study and m-Learning. Then, the students were asked to fill the questionnaire based upon their mobile phone usage and also upon their perceptions towards m-Learning.

Data Analysis

The data analysis was performed using the Statistical Packaging for Social Sciences (SPSS), version 17.

Ethical Consideration

Respondents were ensured that their data would only be used as anonymous participant and then the written informed consent was sought from each of the partaker. They were also allowed to withdraw from the study during or after the data collection process. All the responses from the participants were then coded to safeguard the confidentiality of the participants.

## Results

Variable	Response No		Response Yes	
	F	%	f	%
Facebook	14	11.7	179	87.3
Alarm	5	2.4	198	96.6
Clock	6	2.9	197	96.1
Dictionary	57	27.8	146	71.2
Camera	9	4.4	194	94.6
Videos	23	11.2	180	87.8
Games	49	23.9	154	75.1
Storage	26	12.7	177	86.3
Office Apps - Word, PPT, XLS	67	32.7	136	66.3
Podcast	151	73.7	51	24.9
Dictionary/Grammar	73	35.6	130	63.4
Organizer	102	49.8	101	49.3
Sound Record	76	37.1	127	62.0
Twitter	128	62.4	75	36.6

Table 1: Use of Mobile Device

Results in Table 1 clearly showed that very few percent of students were into using Twitter (36.6%) and Podcast (24.9%) from their mobile phones. However, there were some apps which they used most frequently on their cell phones, as compare to Twitter and Podcast, like Office apps (66.3%), Dictionary/Grammar (63.4%), Organizer (49.3%) and Sound Recorder (62.0%). The results also reveal the majority was engaged in using their mobile phones for activities like Facebook (87.3%), Alarm (96.6%), Clock (96.1%), Dictionary (71.2%), Camera (94.6%), Videos (87.8%), Games (75.1%) and Storage (86.3%).

Table 2

	No		Yes	
	F	%	f	%
I would be more likely to.....				
download a mobile application	10	4.9	193	94.1
find the definition of a word I don't know	25	12.2	178	86.8
use a mobile device as a calculator	4	2	199	97.1
set an alert/alarm for a potential due date	7	3.4	196	95.6
translate a sentence into another language	93	45.4	110	53.7
access a social networking site	7	3.4	196	95.6
send an email	11	5.4	192	93.7
Have you ever downloaded an application that helped you learn new?	25	12.2	178	86.8
post a comment to a blog or respond to a post	14	6.8	189	92.2
Have you searched something that you didn't understand in class?	33	16.1	170	82.9
Have you ever engaged in social networking?	21	10.2	182	88.8
Have you ever wrote notes to remind yourself of an assignment?	61	29.8	141	68.8
Have you ever set a reminder to help you remember assignment submission date?	50	24.4	153	74.6
Have you texted a classmate about the content of the class?	23	11.2	180	87.8
Have you texted a classmate about the teacher's ability?	67	32.7	136	66.3
Have you texted a classmate about the level of engagement in class?	54	26.3	149	72.7
Have you taken picture or video to help yourself in making assignment?	29	14.1	174	84.9
Have you accessed Educational Management System?	112	54.6	91	44.4
Have you read an article or assignment on mobile device?	35	17.1	168	82
Have you used your mobile device as a study tool?	27	13.2	176	85.9
Have you ever played an educational game?	67	32.7	135	65.9
download podcast	114	55.6	89	43.4

Table 2: Mobile Device Awareness\*\*

\*\* (Mobile device awareness table has been shortened due to the formatting purpose. Full table can be seen in Appendix.)

Table 2 disclosed the prior knowledge of students about using a mobile phone and found that the majority of the students' knew very well about how to use a mobile phone. However, there were things to which students' were not familiar about, like very few of them knew how to use educational management system (44.4%) or how to download a podcast on a mobile device (43.4%). Otherwise, most of the students knew how to download an application (94.1%), use it as a calculator (97.1%), as a study tool (85.9%), take pictures or videos to be used in making assignments (84.9%), read articles on mobile device (82%), text a classmate about the content of the class (87.8%), etc. which clearly elaborated that most of the students were comfortable using the mobile device for their learning or social purposes.

Table 3

	Strongly Disagree %	Disagree %	Neutral %	Agree %	Strongly Agree %
I would like to.....					
participate in class	14.1	17.6	31.7	17.6	18
spent more time on class work	8.3	9.3	25.9	33.7	22
participate in class activities	7.3	14.1	26.3	31.7	19.5
engage in class discussions	12.2	24.4	23.4	22.9	16.1
to ask for help	7.3	14.1	20.5	31.7	25.4
see m-Learning incorporated in class	7.8	13.2	31.2	23.4	23.4
be able to easily view course materials	4.9	7.3	14.1	36.6	36.1
be able to download mobile applications	4.4	5.9	17.1	32.2	39.5
be able to access Educational Management System	4.9	9.8	22.9	33.2	28.3
be able to take quizzes	10.7	13.2	20.5	26.3	28.3

be able to participate in discussion forums	6.8	11.2	22	32.7	26.3
It would not require a lot of effort to learn how to use a mobile application designed for my class	2.9	7.3	28.3	30.7	29.8
Learning would be easy through mobile device	4.4	5.4	23.9	33.2	32.2
It is easy to engage in discussions using a mobile application	4.9	9.8	24.9	36.6	22.9
m-Learning would allow me to learn everywhere	4.4	8.3	27.8	32.7	25.9
It would be easier to complete class work/ assignments if I could use mobile device	6.3	12.7	23.4	33.7	22.9

Table 3: Perception\*\*

\*\* (Perception table has been shortened due to the formatting purpose. Full table can be seen in Appendix.)

Table 3 unveiled the students' perception about using m-Learning and revealed that most of the students disagreed to the idea that they would more likely to engage in class discussions inside class if they could post their thoughts from their mobile devices (24.4%). Results also showed that majority of the students were neutral about the two statements; they would be more likely to participate in class if they could use their mobile phones (31.7%) and they would like to see mobile learning incorporated into their classes (31.2%). However large group of students were agreed to use their mobile devices in spending more time on their classwork if they could access the material anytime and anywhere (33.7%), to participate in class activities outside of class time (31.7%), in asking for help more likely (31.7%), to easily view course materials (36.6%), to access Educational Management System in a mobile format (33.2%), to participate in discussion forums (32.7%), to engage in discussions

using a mobile application (36.6%), to learn and study in places where they couldn't easily learn or study in (32.7%), and to complete classwork or assignment more easily (33.7%). Students were also believe that it would not require a lot of effort from them to learn how to use mobile application designed for their class (30.7%) and learning on their personal mobile device would be easy because they are already familiar with all of its functions (33.2%). Many students strongly agreed that they would like to be able to download mobile applications that could help them study (39.5%) and to take quizzes on their mobile devices (28.3%).

### **Discussion**

Mobile phones have influenced the lives of common man. It is more prevalent in Europe and Asia than in the US as it has been widely adopted by the youth as a main source of communication (Aoki & Downes, 2003). However Finland has the highest rate of mobile phone usage across the globe and somewhat 90% of the people under 30 years of age own the mobile device (Puro, 2002). Statistics clearly show that mobile phones are the driving force of any society. Cell phones are not only used by the individuals for their personal use, but cell phone also transforms people according to its own rule of functioning. Students are using their cell phones to communicate through voice or text, photographs, and videos, Beside these they are also utilizing it for computing (Prensky, 2005). The results of the study showed that students were very much aware of all of the mobile phone functions and they were also likely to use all mobile phone applications. The results also revealed that majority of students used their cell phones in using the built in applications like alarm, clock, games, sound recorder, camera, videos, thesaurus and storage. These results seemed to be justifiable as young adolescents are more likely to spare their leisure time by engaging themselves in mobile activities (Wilska, 2003). From playing games to texting their friends for some class activity, the mobile phone has completely taken over their charge. All of the above mentioned apps can be used academically as well like setting an alarm or alert for due assignment, taking pictures or video for educational



purposes, using thesaurus or storing some files on the device so that one could easily read while on the go. A second big thing which has created a real hype nowadays is the use of social media by the students. Whether they are travelling, playing on the ground or street, partying out with friends, attending a class lecture, or sitting in the library, students can be easily seen active on social media like twitter or Facebook. However, our results depicted that majority of the students were not using their cell phones to tweet, but they were consuming it largely for Facebooking. Facebook can be used by the students for both social and academic purposes. However, there exists no gender difference in Facebook usage and most importantly it also doesn't affect their studies (Jamil, Zehra, Naqvi, & Bhamani, 2013). Office apps are the one other application that has been in use by the majority of the students and rightly so, so that students can read or modify their documents and create or modify presentations while not connected with their computer or laptop. This ease of use and mobility has really given the mobile phones a chance to get flourish. Also the features which they are providing added both positive and negative sides to it. However, it totally depends upon user to use it for good deed or for bad.

It has been acknowledged that the computer is an indispensable tool for the 21<sup>st</sup> century students though there are still differences in opinion when to use it and where to use it. Most of the educationists relate the word "computer" with personal computers, laptops or PDA's. Now time has changed the equation and cell phones have proved themselves to be equally, or sometimes more, powerful than their elder cousins. For this reason now students can do almost everything on their cell phones without even opening their computer systems. Empirical results of the study demonstrated that large group of student knew how to download the application on their cell phones which provides utility to them. They also knew how to use their cell phones as a calculator, as a study tool, as a camcorder, as a video making device. These results also supported in one of the books in which author enlighten the significance of mobile phones in the educational domain. He further demonstrated that how short

messaging service, graphic displays, downloadable applications, internet browsing, cameras, video clips, or GPS functions of mobile phones are helping students to enhance their learning and making their learning independent of classroom environment (Puro, 2002). We also found that despite using the device as a learning tool or to enhance their learning experience, students were also using it as a communication device to bridge the communication gap when they were at home. Results showed that they used to discuss about their class content while at home, they also used it to discuss about the teachers' ability that if they were up to their expectation or if they were satisfied about his/her way of teaching. This is rightly so that now a day's students are more expressive and open about their learning experience. They are very much comfortable in commenting about the teacher's ability to deliver and openly share their views about them publically or privately. Results also depicted that cell phones were majorly use by the students as an organizer or scheduler through which they could set their alerts for assignment due dates or exam dates. It was also found that cell phone was being used as notepad in which they could take their important notes. These results also supported in one of the research article carried out by (Totten, Thomas, Cook, & Lesch, 2008) which indicated that cell phones are being used for several reasons. Out of those reasons some are to remain available all the time, to socially interact, as a video game, as a calculator, as an organizer, as a planner, as a clock, and as an internet access device.

Despite of its substantial growth in educational context many educationists still assume it as a big source of distraction in classrooms or private learning places. However some educationists still regarded cell phones as a handy tool to enhance students learning experience and to provide them quality education. On contrary students around the globe also possesses mixed feelings about this new concept of e-learning. Some of them consider it as a helping tool through which learning continues 24/7 while others still doubt its usefulness in an educational context. A research study conducted, by (Suki & Suki, 2011), to explore the students' perceptions towards mobile learning. They found that majority of the students were against the use of

mobile phones in learning and were not ready to incorporate it in their classrooms for many reasons. A similar study carried out by (Iqbal & Qureshi, 2012) in which results indicated that students are very much ready and willing to incorporate m-Learning in their classrooms. Above discussion clearly shows that there exists a mixed feeling about the adoption of this e-learning term. Empirical results of this study exhibited that most of the students were willing to incorporate m-Learning in their classrooms. They agreed that they could be able to spend more time on studying if they could be able to study outside of their classroom anytime and anywhere. They were of the opinion that they could easily complete their assignments and participate in discussions using m-Learning. They also were of the opinion that it would be more convenient for them if they could take up quizzes in their phones. They were confident that they could easily download or run customize mobile application designed for their classroom. However despite of the above responses many students were neutral in the response of the statement that if they would like to see m-Learning incorporated into their classrooms. The possible reason for this could be that in Pakistan m-Learning is still a term to which many teachers' and students' are not aware of or they just don't have the exposure to the positive sides of this concept. The other possible reason might be that student's here still regard mobile phone as a huge distraction or they just repute it as a tool for communicating or socializing with each other.

### **Conclusion**

Technology is influencing society in many ways. Education is also getting more technically sound and is going beyond the traditional walls of a classroom. It is removing the learning barriers and is helping in retaining the students attention and focus towards learning.

Last decade brought some revolutionary changes in e-learning resulting in the evolution of m-Learning. It's gaining more reputation and acceptance globally each day. This study examined the perception of university students towards m-Learning and found

that mobile phones possess a very significant place in a student's life. Student's uses them for a variety of purposes. The study also discovered that students were already using their mobile phones for educational purposes somehow. They were of the opinion that mobility would allow them to complete their assignments on time. However they were neutral about incorporating it in their classrooms.

### References

- Aamri, A., & Suleiman, K. (2011). The Use of Mobile Phones in Learning English Language by Sultan Qaboos University Students: Practices, Attitudes and challenges. *Canadian Journal on Scientific & Industrial Research*, 2(3), 143-152.
- Ally, M. (2009). *Mobile Learning: Transforming the Delivery of Education and Training*. Edmonton: Athabasca University Press.
- Aoki, K., & Downes, E. J. (2003). An analysis of young people's use of and attitudes toward cell phones. *Telematics and Informatics*, 20, 349-364.
- APP. (2011, July 27). *Pakistan ranks 5th in Asia in mobile phone users*. Retrieved from Dawn.com: <http://www.dawn.com/news/647338/pakistan-ranks-5th-in-asia-in-mobile-phone-users>
- Atta, A. (2014, July 10). *Mobile Phone Users in Pakistan Cross 139.2 Million Mark*. Retrieved from propakistani: <http://propakistani.pk/2014/07/10/mobile-phone-users-in-pakistan-cross-139-2-million-mark/>
- Bali, E. (2013, February 8). *The Time is Now for Mobile Technology in Higher Education*. Retrieved July 15, 2014, from The Evolution: [http://www.evolution.com/distance\\_online\\_learning/the-time-is-now-for-mobile-technology-in-higher-education/](http://www.evolution.com/distance_online_learning/the-time-is-now-for-mobile-technology-in-higher-education/)
- Berg, B. L. (2004). *Qualitative research methods for the social sciences* (Vol. 5). Boston: Pearson.
- Campbell, S. W. (2006). Perceptions of mobile phones in college classrooms: Ringing, cheating, and classroom policies. *Communication Education*, 55(3), 280-294.
- Christine Armatas, D. H. (2005). Balancing the possibilities for mobile technologies in higher education. *Balance, Fidelity, Mobility: maintaining the momentum?*, 27-35.

- Conner, C. (2013, December 11). *Fifty Essential Mobile Marketing Facts*. Retrieved from Forbes: <http://www.forbes.com/sites/cherylsnappconner/2013/11/12/fifty-essential-mobile-marketing-facts/>
- Contributor, G. (2011, July 13). *The Importance Of Cell Phones In Modern Society*. Retrieved from RMG Tech: <http://tech.rambergmedia.com/the-importance-of-cell-phones-in-modern-society/>
- Corlett, D., Sharples, M., Chan, T., & Bull, S. (2004). A Mobile Learning Organiser for University Students. *Second IEEE International Workshop* (pp. 35-42). IEEE.
- DiGiano, C., Yarnall, L., Patton, C., Roschelle, J., & Tatar, D. M. (2002). Collaboration Design Patterns: Conceptual Tools for Planning for The Wireless Classroom. *IEEE International Workshop on Wireless and Mobile Technologies in Education* (pp. 39-47). IEEE.
- Fahad, N. (2009). STUDENTS' ATTITUDES AND PERCEPTIONS TOWARDS THE EFFECTIVENESS OF MOBILE LEARNING IN KING SAUD UNIVERSITY, SAUDI ARABIA. *The Turkish Online Journal of Educational Technology – TOJET*, 8(2), 111-119.
- Georgiev, T., Georgiev, E., & Smrikarov, A. (2004). M-Learning - a New Stage of Å-Learning. *International Conference on Computer System and Technologies*, 4, pp. 1-4.
- Gilroy, M. (2004). Invasion of the Classroom Cell Phones. *Education Digest: Essential Readings Condensed for Quick Review*, 69(6), 56-60.
- Holzinger, A., Nischelwitzer, A., & Meisenberger, M. (2005). Mobile Phones as a Challenge for m-Learning: Examples for Mobile Interactive Learning Objects (MILOs). *PerCom 2005 Workshops* (pp. 307-311). IEEE.
- Hussain, S., Manap, M. R., Amir, Z., & Krish, P. (2012). Mobile Learning Readiness among Malaysian Students at Higher Learning Institutes. *Asian Social Science*, 8(12), 276-286.
- Iqbal, M. J., & Ahmad, M. (2010). ENHANCING QUALITY OF EDUCATION THROUGH E-LEARNING: The Case Study of Allama Iqbal Open University. *Turkish Online Journal of Distance Education-TOJDE*, 11(1), 84-97.

- Iqbal, S., & Qureshi, I. A. (2012). M-Learning Adoption: A Perspective from a Developing Country. *The International Review of Research in Open and Distance Learning*, 13(3).
- Ito, M. (2005). Mobile phones, Japanese youth, and the re-lacement of social contact. *Springer London*, 131-148.
- Jamil, S., Zehra, F., Naqvi, R., & Bhamani, S. (2013). Impact of facebook intensity on academic grades of private university students. *Information and Communication Technologies (ICICT)* (pp. 1-10). Karachi: IEEE.
- Kamran, S. (2010). Mobile Phone: Calling and Texting Patterns of College Students in Pakistan. *International Journal of Business and Management*, 5(4), 26-36.
- Katz, J. (2005). Mobile Phones in Educational Settings. (pp. 305-317). Vienna: Passagen Verlag.
- Kearsley, G. (1999). *Online Education: Learning and teaching in cyberspace*. Belmont: Wadsworth Publishing.
- Kent, B. (2012, December 10). *Be Visible*. Retrieved July 15, 2014, from Be Visible Associates: <http://www.bevisibleassoc.com/the-mobile-web-10-incredible-facts-that-you-probably-didnt-know/>
- Kevin Wood, S. H. (2003, 09 22). *Taming the MegaLecture: Wireless Quizzing*. Retrieved July 15, 2014, from Campus Technology: <http://campustechnology.com/Articles/2003/09/Taming-the-MegaLecture-Wireless-Quizzing.aspx>
- Larry Johnson, A. L. (2008). *Horizon Report: 2008 Australia-New Zealand Edition*. Austin, Texas: The New Media Consortium.
- Ling, R. (2000). "We will be reached": The use of mobile telephony among Norwegian youth. *Information technology and people*, 13(2), 102-120.
- Maria Virvou, E. A. (2005, January). Mobile educational features in authoring tools for personalised tutoring. *Computers and Education*, 44(1), 53-68.
- Motiwalla, L. F. (2007). Mobile Learning: A Framework & Evaluation. *Elsevier*, 49, 581-596.
- Muhammad Javid, M. A. (2011). Mobile Phone Culture and its Psychological Impacts on Students' Learning at the University Level. *Language in India*, 11, 415-422.
- Muhanna, W. N., & Abu-Al-Sha'r, A. M. (2009). University Students' Attitudes towards Cell Phone Learning Environment. *iJIM*, 3(4), 35-40.

- O'Malley, C., Vavoula, G., Glew, J., Taylor, J., Sharples, M., & Lefrere, P. (2005). *Guidelines for learning in a mobile environment*. MOBIlearn.
- Osman, M., El-Hussein, M., & Cronje, J. C. (2010). Defining Mobile Learning in the Higher Education Landscape. *Educational Technology and Society*, 13(3), 12-21.
- Palen, L., Salzman, M., & Youngs, E. (2001). Discovery and Integration of Mobile Communications in Everyday Life. *Springer*, 5, 109-122.
- Peng, H., Su, Y.-J., Chou, C., & Tsai, C.-C. (2009). Ubiquitous knowledge construction: mobile learning re-defined and a conceptual framework. *Innovations in Education and Teaching International*, 46(2), 171-183.
- Pollara, P. (2011, December). MOBILE LEARNING IN HIGHER EDUCATION: A GLIMPSE AND A COMPARISON OF STUDENT AND FACULTY READINESS, ATTITUDES AND PERCEPTIONS. *Ph.D Dissertation*. Louisiana, USA: Louisiana State University and Agricultural and Mechanical College.
- Prensky, M. (2005). What Can You Learn From A Cell Phone? - Almost Anything! In B. Bracey, & T. Culver, *Harnessing the Potential of ICT for Education: A Multistakeholder Approach* (Vol. 1, pp. 271-279). New York: United Nations Publications.
- Puro, J. P. (2002). Finland: a mobile culture. In J. E. Katz, & M. Aarbus, *Perpetual Contact: Mobile Communication, Private Talk, Public Performance* (pp. 19-29). Cambridge University Press.
- Qureshi, I. A., Ilyas, K., Yasmin, R., & Whitty, M. (2012). Challenges of implementing e-learning in a Pakistani university. *Knowledge Management & E-Learning: An International Journal*, 4(3), 310-324.
- Sharples, M. (2000). The design of personal mobile technologies for lifelong learning. *Computers & Education*, 34, 177-193.
- Sharples, M., Taylor, J., & Vavoula, G. (2005). Towards a Theory of Mobile Learning. *Proceedings of mLearn*, (pp. 1-9).
- Steve, T. (2013, August 16). *The Need of Mobile Phones in our daily lives*. Retrieved from explore B2B: <https://exploreb2b.com/articles/the-need-of-mobile-phones-in-our-daily-lives>
- Suki, N. M., & Suki, N. M. (2011). Using Mobile Device for Learning: From Students' Perspective. *US-China Education Review*, 1, 44-53.

- Telbis, R. (2014, May 01). *Mobile Phones Increase Literacy, Report Reveals*. Retrieved from Borgen Magazine: <http://www.borgenmagazine.com/mobile-phones-increase-literacy-report-reveals/>
- Thulin, E., & Vilhelmson, B. (2007). Mobiles everywhere Youth, the mobile phone, and changes in everyday practice. *Young*, 15(3), 235-253.
- Tiong Goh, K. (2006). Getting Ready for Mobile Learning-Adaptation Perspective. *Journal of Educational Multimedia and Hypermedia*, 15(2), 175-198.
- Totten, J. W., T. J., Cook, R. A., & Lesch, W. (2008). General Patterns of Cell Phone Usage among College Students. *Services Marketing Quarterly*, 26(3), 13-39.
- Tracy, F. (2006). *Making Language Work*. London: McGraw-Hill Company.
- Traxler, J. (2007). Defining, discussing and evaluating mobile learning: the moving finger writes and having written. *The International Review of Research in Open and Distance Learning*, 8(2).
- Trifonova, A. (2003). *Mobile Learning- Review of the Literature*.
- Tsao, C. (2013, October 08). *6 Ways Mobile Technology Has Transformed the World's Poor*. Retrieved from Huffington Post: [http://www.huffingtonpost.com/clara-tsao/6-ways-mobile-techology-h\\_b\\_4054076.html](http://www.huffingtonpost.com/clara-tsao/6-ways-mobile-techology-h_b_4054076.html)
- Universities Using Technologies*. (2012, May 11). Retrieved July 16, 2014, from TopUniversities: <http://www.topuniversities.com/student-info/choosing-university/universities-using-new-technologies>
- Wains, S. I., & Mahmood, W. (2008). Integrating m-learning with e-learning. *9th ACM SIGITE conference on Information Technology Conference* (pp. 31-38). ACM.
- Wang, M., She, R., Novak, D., & Pan, X. (2009). The impact of mobile learning on students' learning behaviours and performance: Report from a large blended classroom. *British Journal of Educational Technology*, 40(4), 673-695.
- Wilska, T.-A. (2003). Mobile Phone Use as Part of Young People's Consumption Styles. *Journal of Consumer Policy*, 26, 441-463.