

Utilization of Smartphones in Learning: The Case of College Students in Saudi Arabia

Ali Alkhalifa¹ & Yazan Alghazo¹

¹ Prince Mohammad Bin Fahd University, Kingdom of Saudi Arabia

Correspondence: Yazan Alghazo, Prince Mohammad Bin Fahd University, Kingdom of Saudi Arabia. E-mail: Alialkhalifa8@gmail.com, Yazan.alghazo@gmail.com

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Abstract

The purpose of this research is to find out how college students in Saudi Arabia utilize their smartphones in their learning and to find out the effect of its use in their learning and investigate ways that are more effective for such use. In order to achieve this goal, a researcher developed questionnaire was distributed to 93 college students. The study utilized a mixed-methods approach in collecting data. Investigation Results are analyzed and demonstrated with charts, followed by a discussion of the main findings.

Keywords: smartphones, college students, learning, investigate

1. Introduction

Smartphones are a new technology that has been commonly used among most of the people recently. This technology has been developed massively for several purposes. One of the purposes and that is our main concern on this research is academic learning and social media. Both of them can be a tool of learning if used effectively. The impact of smartphones on learning can be either positive or negative. However, students may not have tried to involve smartphones as one of their learning tools as of yet. The way each student involves smartphone in learning is different, finding the best and most useful method is highly significant. Students' GPA can be used as a method of measurement, although it might not be an accurate method to measure the effectiveness of this technology in learning.

The reason why this topic was identified by the researchers is because smartphones are becoming very common tools for acquiring information. In addition, they are accessible everywhere. Since the use of smartphone nowadays is significantly high, the study would investigate how university students use their smartphones and how effective they are as learning tools in their perception. This can help in finding out if students use the technology and invest the chance they have, or use their phones only for communication and non-learning purposes.

Nowadays, students can search and communicate with their colleagues and those who are in the same major all over the world. Moreover, they can study their lectures and even complete their assignments using their smartphones. Furthermore, social media offers the ability to share knowledge easily and at the click of a button.

Although students are able to utilize their phones in learning process, some do not use it properly. This research helps identify the ways students use their smartphones and which way is more effective. Other variables such as hours students spend using smartphones and the type of apps they use to communicate academic knowledge are investigated in this study.

2. Literature Review

A few years ago, learning methods has changed due to its interaction with technology. Researchers have defined mobile learning (M-learning) in many ways. M-learning is the use of the small hand-held devices for learning purposes (Mcconatha, Praul, and Lynch, 2008). The use of smartphones in learning can be classified into two categories; formal learning, and informal learning. (Chen, Denoyelles, 2013). The invading of this technology to learning is debatable, students find it very helpful, and that it is a time consuming and essential for their achievements. On the other hand, instructors are not ready for this transformation and stand against those who use it in class (Chen, Denoyelles, 2013). Some universities have shown some action toward the story and begun to work on online libraries. (Dresselhaus, Shrode, 2012).

Nowadays students use their smartphones for most of their day. However not all of the students have adopted their smartphones for learning. (Alfawareh, Jusoh, 2014). Therefore, we can categorise students use as formal learning

and informal learning. The formal involve students who use academic resources from the instructors, while the informal involve those who use it for self-directed learning. Even-though students do want to use their smartphones more for formal learning. Instructors do not provide them with enough resources. (Chen, Denoyelles, 2013). Although student use of smartphone need a wireless access point (WAPs), and strengthening the network system to protect it. (Farley,Murphy, Johnson,Carter, Lane, Midgley, Koronios, 2015). However, some universities have established online services of the library as a respond to student interest. (Dresselhaus, Shrode, 2012). Researchers find out that the academic performance of higher education students cannot be tested by their GPA. Other factors such as interest and attitude can play an important role. (Rockinson-Szapkiw, Courduff, Carter, Bennett, 2013).

In conclusion, education in general and higher education in specify has gone through many changes recently due to rapid development in technology. Students have shown high interest toward the use of smartphones in learning. They believe that it helps then to perform tasks in less time and allows them to interact and discuss between each other. (Shih-hsien, 2012). Although it might be difficult for instructors to engage smartphones in learning, entering mobile learning communities can help them to develop their skills. (Farley,Murphy, Johnson,Carter, Lane, Midgley, Koronios, 2015).

3. Methodology

3.1 Participants

The sample for this study includes 93 participants. 65.6% of them were males, however the rest 34.4% were females. On the other hand, the majority of the participants were between the ages of 19-25. The majority of student varies mostly between college of engineering with 40.9% and college of business with 33.3%. The rest are college of computer engineering and science with 14%; 10.8% on the college of science and human studies and 1.1% graduate degree. In addition, the most of the participants were on the freshmen level with 50.5%.

3.2 Instrument

The research instrument in this study was a researcher developed questionnaire. The questionnaire questions were developed by the researchers. In addition, Questionnaires used in previous literature was analyzed before developing this instrument. The questionnaire consisted of three sections: The first section measured demographic variables such as, gender, age, sex. The second one measured academic achievement and performance including GPA. The third section included open ended questions that measured students' opinions and attitudes towards the use of smartphones in their learning.

3.3 Data Collection

To collect data for this study, the researchers distributed questionnaires to students at a private university in the eastern province of Saudi Arabia. The Sample for the study consisted of 93 (N=93) university students. Figure 1. Shows the variation of the sample with regards to gender.

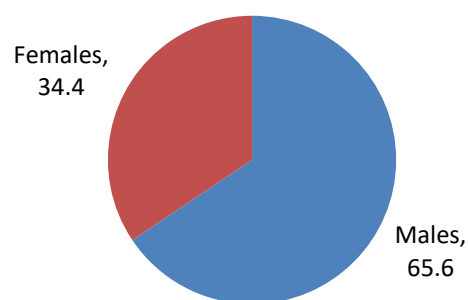


Figure 1. Males to female's percentage

4. Results and Discussion

Results show that college students do use smartphone most of their time. As figure2 below illustrates that the answers to the question "how often do you use your smartphone" All of them have shown a positive respond, 75% always and 25% sometimes. However, none of them have said "never".

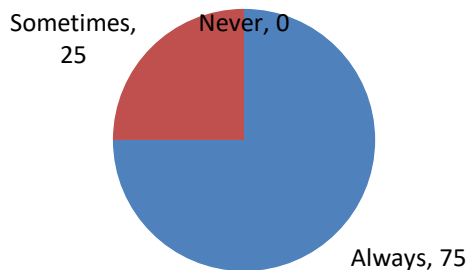


Figure 2. Frequency of smartphone usage

Their usage in learning is more to be informal learning, in which they use it more to search for information with 60.2%. On the other hand, only 37.5% of them use it to access course material. The interesting finding was that only 2.2% of students used it for virtual class-rooms. In addition, results and expectations matches for using social media as source of learning for the question “Have you ever used social media as a tool of learning?” 78.5% have responded positively, and 14% have responded negatively “it is not effective”; while the 7.5 left have never tried to use social media for learning. This can prove what Chen, & Denoyelles, (2013) have found; students use their mobile phones more for informal learning than formal academic.

Even-though students do think that smartphone is a good tool of learning, their main purpose of using smartphone is social media by 79 responses which is not commonly known to be for learning purposes, followed by blackboard with 60 responses as illustrated on figure 3. In addition, figure4 below also shows, the most frequent category of apps used is social media, followed by music 12.9%. Books and references are end up with 10%. This finding proves what Alfawareh, & Jusoh, (2014) have said, most of the students have not adopted smartphone for learning.

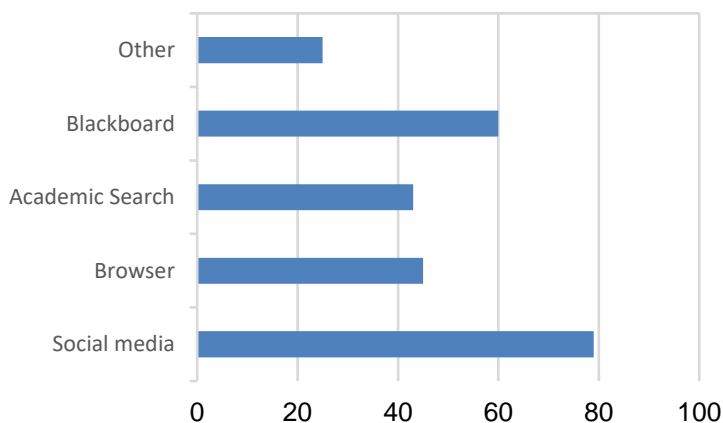


Figure 3. Main purpose of usage

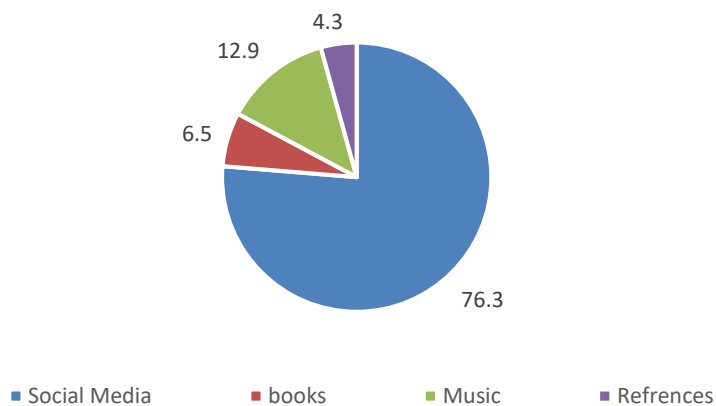


Figure 4. Frequently used category of application

Another finding was, most of the students do think that smartphones can be a good tool of learning. The chart below shows that more than 80% of the participants have answered yes to the question; however, only 3.2% have answered no, they think that it is not effective. An investigation to their answers has been done. The findings were that they are not using it at least for downloading material and two of them are also not using it for searching for information. A good question where asked “how often do you use smartphone for taking notes in class” and “Do you use smartphone for recording lecture”. For notes answers where classified into 3 groups, always, sometimes, or never. The results receptively are, only 16.1% (always), 57% (sometimes), and 26.9% (never). On the other hand, the responses of recording lectures are, 61.3% have sown a negative response “No”, and the rest 38.7% said “Yes”. Although many of the participants have shown a good use for taking notes, the number of participants responded negatively for recording is high. The reason out of this is unknown, it is either that they do not prefer to record, or they are not consuming this benefit.

An open ended question where asked “If you have any recommendation fell free to write”, and participants have written their point of view. More than one comment where

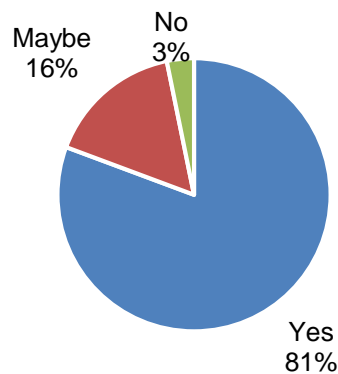


Figure 5. Student perception of using smartphone as a tool of learning

mentioning the same point, which is to make an application to access blackboard. They believe that accessing blackboard through an app will make much easier, and it can attract students to use their smartphone for learning. In addition, another participant has mentioned that learning through the use of social media can be more effective, if it was supervised by an instructor, rather than it being under student's productivity. Since the main purpose found from student usage was social media, this can be used as an advantage to add academic purpose for them using it. This can match what was found on the research paper done by Chen, & Denoyelles, (2013) Establishing a faculty focused group for mobile learning can promote mobile formal academic use. The result of the use of social media can somehow be similar to what Gikas,& Grant (2013) have stated, mobile technologies enable learners to find, identify, manipulate and evaluate existing knowledge and successfully integrate and communicate this new knowledge into their work.

5. Conclusion

In conclusion, smartphones are being used in most of our times and they are accessible everywhere. This can be touched in our daily lives, and this was a driver to find out its effect in students live. Despite the fact that it is used for communication and chasing, it can be a tool of learning. This research attempts to find its effectiveness on students, and which method is more beneficial. More interestingly it can reflect whether students do invest the good use of technology or not.

As investigations have been done, results proved that many students do invest technology as a toll of learning. They have shown numerous ways of using smartphone as a toll of learning. Hence they use smartphone for most of their time, they do use it for searching, taking notes in class, and recording lectures. However, they use it to access blackboard sometimes.

While the most frequent applications used by students where under the category of social media, Books and references are used rarely. Although Participants have proven that social media can be a good tool for learning especially if it was under the supervision of instructors, Books and references can be more beneficial to them as they are more reliable. Since students use social media as a toll of learning, an interpretation can be found which is that they use the available sources of sharing knowledge. While to have someone saying “if social media where

under the supervision of instructors, it will be more effective”, means that they evaluate the information they receive.

The third finding was to hear the feeling of participants toward the topic. Interestingly, participants recommend having an application for accessing blackboard. Since this can help them to do what they want easier, and attract more students to use smartphone for accessing blackboard. On the other hand, the university has to develop the faculty to make more use of smartphone for academic purposes.

Although the results have proven that students do use smartphone for learning and that it is a good toll of learning. Their use is more to be classified as informal use rather than formal academic use. The benefit that can be excreted out of smartphones can be weighed more highly if the environment where welcoming for its use. Although the university are providing wireless network for students, and booking a study room through their website, an application for blackboard and developing faculty members to make a better use of new technology would make a huge difference. As mentioned earlier that the number of participants used virtual class-rooms are significantly low around 2 out of 93 which is nothing. An interoperation can be that the sources available to students for formal academic use are limited.

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