

The Impact of Mobile Phones on Higher Education: Insights from University Students in the United Arab Emirates

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Abstract

The research topic is summarized in the importance of studying the uses of smart tablets in the educational process. It attempts to observe the attitudes and perspectives of users due to the importance of smart tablets in the educational process, getting introduced to the type of smart tablets used by students in the educational process, defining students' perspectives towards using smart tablets in the educational process, defining the extent of benefit gained by students as a result of using smart tablets in developing the skills of education and learning, defining students' attitudes towards using smart tablets in the educational process and defining students' perspectives towards the disadvantages of using smart tablets in the educational process. This study is considered as one of the descriptive studies, which aim at collecting data relevant to the usage of university students – sample of study – for the smart tablets and their attitudes towards using them in the educational process, as well as studying some variables related to usage, such as gender, social status, educational stage etc. This study depends on the survey approach as being considered an organized scientific effort that is used for obtaining information or descriptions on the phenomenon, subject matter. The study concluded that the sample of study agreed on the necessity of enabling Arab universities to encourage students to use more techniques in classrooms, and teaching curricula by using smart tablets since this will help in developing the communicational skills of university students. Moreover, they agreed on teaching most of the media curricula through social media.

Keywords: Prospectives Educational process; Educational via Mobile; Wireless Communication

Introduction

Advanced educational communication and information technology is no longer a dream that is difficult to achieve, but rather it is a reality. The era of information began rapidly, and we do not know to what extent it will be. There is no doubt that this modern technology caused main changes in the educational systems, and in the efficiency of the educational process. Controlled by people not institutions, and they can make use of the Internet. They can also provide multi-media options and they can make many duties easier; especially the ones relevant to communication". Nowadays, there are various collections of those machines, which witness continuous development; including mobile phones, tablets, I-Pads, I-Pods, and other similar machines that will be included in the list during the next period. with this aspect as presented by Dr. Jamal Al-Dahshan [1]. Those studies

can be classified in three fields: The first of which includes: studies related to the efficiency of using portable devices in achieving some educational objectives, such as the study of Zainab Hassan Al-Sherbini [2], Hania Abd Al-Razzaq Fatany [3] study, Rafiq Saeed Al-Barbari and Hanan Raja'a Abd El-Salam's study [4]. The second field dealt with studies related to learners' attitudes towards using mobile phones in the field of teaching and learning: such as the study of Shawn, W. M [5] and Cynthia M. De Witte [6]. While the third field is relevant to the studies, which attempted to shed light upon mobile learning through highlighting its importance as well as the fields and requirements of using it in the educational process, including several studies: such as Taiseer Andraws Salim's [7] study, Jamal Al-Dahshan's and Yunis's study [8] and Salah Al-Din Al-Hussainy's (2009) study.

In fact, despite of all these various studies, and the differing opinions of researchers and writers on this topic, which indicated that there are people, who support the idea of using portable devices in the field of education, and similarly, there are people, who reject this idea. However, a small number of studies were concerned in dealing with knowing the users' attitudes and perspectives toward the efficiency or non-efficiency of those devices in the educational process.

Problem of Study

The problem of study is represented in the lack of information on the extent of employing the portable devices in the educational process by the Arab universities, and non-existence of a complete perspective on the students' attitudes towards this usage, and whether they have negative or positive attitudes towards this.

Importance of Study

➤ One of the earliest studies, which attempt to know the importance and uses of portable devices in the educational process.

➤ It attempts to observe the attitudes and perspectives of users toward the portable devices in the educational process.

➤ It observes the advantages and disadvantages of using portable devices in the educational process.

Objectives of Study

➤ Knowing the quality of portable devices used by students in the educational process.

➤ Defining the students' perspectives towards the use of portable devices in the educational process.

➤ Defining to what extent will the portable devices benefit in developing students' teaching and learning skills.

➤ Defining students' attitudes towards using portable devices in the educational process.

➤ Defining students' perspectives towards the disadvantages of using portable devices in the educational process.

Previous Studies

The study of Riham Mohammed on the effective problem-solving brain storming in the mobile learning environment for developing the problem solving skills of learning technology students and their attitudes towards it, concluded that there is a statistically significant difference (0.01) between the average marks of one experimental group students in the test of problem solving skills for learning technology students before using (brainstorming in the environment of mobile learning) and after using for the sake of post-application. Moreover, there was a statistically significant difference (0.01) between the average marks of one experimental group students in terms of the learning technology students' attitudes before using (brainstorming in the

environment of mobile learning) and after using for the sake of post-application.

Moreover, Essam Obaid conducted a study titled *The Role of Social Networks in Supporting the University Curricula from Male and Female Students' Points of View* on a research sample consisting of (100) male and female students from the Faculty of Computer Science and Information, Imam Mohammed Bin Saud Islamic University, to know their attitudes towards social networks in terms of their curricula. He concluded that students were unconfident about the importance of social networks in supporting the university curricula, their unacceptance towards the method of actual participation in social networks in supporting the university curricula, and the disagreement of professors to attach their personal locations or the locations of their educational sections on the Web with the social networks.

Al-Harethi's study titled: *Applying Mobile Learning by Using Mobile Phones in the University*. The study aimed at experiencing the use of SMSs as a sort of mobile learning in university education. The sample was 24 students of the computer curricula with its uses in learning at the Faculty of Education, King Saud University. The study aid was a questionnaire that showed the students' attitudes towards the mobiles and their satisfaction towards the experiment. The study concluded that the method of using SMSs in the experiment was the most preferred by students when dealing with this type, and there was a positive impact on students towards understanding items of the curricula.

➤ Al-Hamid's (2010) study titled *Uses of The Mobile Phone as a Communicational Method in the Saudi Society and The Satisfactions Achieved*. The sample consisted of 400 individuals of those, who live in the City of Riyadh, and the aid was represented in a questionnaire designed by the researcher. The results included "the disturbance of the majority of sample individuals when they receive advertisements through SMSs". Moreover, she highlighted the sample's interest in forwarding the distinguished SMSs that they receive to other individuals.

Al-Dahshan's and Yunis' [9] study, titled *Mobile Learning, A New Method of Distance Learning*. The study concluded that mobile phones with all their numerous techniques could enrich the students' educational aspect. Moreover, adopting the mobile learning system and applying it correctly required the availability of several matters: including the awareness of the educational process parties toward the role, which can be played by those devices to serve both the teaching and learning processes, as well as training them to use them properly.

The study of Kim, Mims, and Holms [10] titled *Using the Mobile Learning Technique in The Higher Education*, attempted to reveal the reality of using mobile learning in the American Universities. The research sample consisted of 14 members from the teaching panel and 264 students, and the study aids were represented in the final product evaluation card and the form of interview. Results indicated that the most used learning

applications were the SMSs, followed by the MMSs between students and members of the teaching panel. In addition, the study referred to the achievements of great benefits for both the lecturers and students, as well as the existence of some obstacles and disadvantages. The study of Kohut, Doherty, and Dimock [11] referred to the increasing averages of using digital news in the American Community; especially after the appearance of social media, compared to a continuous decrease in the averages of reading the printed newspapers among readers at clear averages. Averages of using news from the printed newspapers and radio were the most exposed to decrease, while the averages of being exposed to the TV news remained high to some extent with a percentage of 55% of the sample.

The study observed increasing averages of the changes in the reading habits from the paper reading to the electronic reading, since the averages of paper reading in publications decreased as follows: First, newspaper, followed by magazines and books. It indicated that the decrease in reading paper books was replaced by using the smart tablets; especially the iPads in reading and browsing books, and that noticeable percentages of readers, who were interested in a certain newspaper, have shown tendency from reading it printed towards browsing it electronically, as the percentage of 55% of the *New York Times* regular readers tended to read it via their computers and mobile phones.

A study conducted by the British Council on the impact of the spider network on the patterns of youth learners, who wish to learn English as a second language, concluded that there was great interaction and effectiveness for teachers in using the technological methods in teaching, and they were able to integrate their students into a wider world outside the limits of the period, and those students were able to gain more marks, achieve more skills compared to others. Moreover, the most important result of this research was that around 69% of the learners all over the world learned more effectively when they used interactive social networking sites.

Theoretical Framework

There are various theories used for studying and interpreting the widespread of information technology in the society, and the theories used in interpreting mobile learning are also various, since mobile learning is considered a new form of the distance learning system, which is based on the separation between a lecturer and a student in terms of place and time. Moreover, the study benefited from the different perspectives of the modern communication technology and social change; especially the new introductions, such as the introduction about globalization and information technology, and post-modernization to illustrate the mutual relations between the cultural context, technology, relations of strength and the views expressed in terms of the world uses of mobile phones. In addition, the study benefited from the available theoretical heritage about the phenomenon of using mobiles.

➤ The Theory of Updates Adoption and Dissemination, presented by Rogers, was dedicated to interpreting the relation between an individual's realization for the benefit of using the update and adopting it for this use. He referred to a variation of society individuals in adopting updates (Rogers, 1983) [12]

➤ Due to the development of information and communication technology, being included in all fields of life, and having great impact on society, researchers have paid special attention to the study of adopting and using technological updates. The fields of researchers' interest varied among them, ranging between focusing on exploring the rates of updates dissemination and adoption in the society to observe its extent of success and the future of using it in the society, or focusing on the method through which this process is done and the factors affecting it (Geana, 2004). Researchers have presented several theories and models interpreting how an update is disseminated in society, and how individuals adopt using it. The "Theory of Reasoned Action" interpreted the relation between the user's beliefs, intentions, and the use of technology since an individual's behavior comes because of what is realized to be done by the user as others believe. The "Theory of Planned Behavior" added the variable of the ability to control behavior as being one of the variables affecting an individual's use of a given update. The "Technology Acceptance Model" interpreted an individual's acceptance for the new information technology according to the extent of realizing its benefit, advantages, and the extent of using it easily [13-15].

Then, the Innovation Diffusion Theory appeared. It has been used by researchers from the sixties to interpret the widespread of several updates: including the technological updates. Rogers defined the process of ideas dissemination and adoption as being the one in which communication is treated in an updated manner, through specific channels, during specific time among individuals, who belong to a social system. He indicated that the update may be an idea, a practice, or a product, and that the process of updates adoption included four elements: The update itself, and the consequences an individual realizes when using it (positive or negative, direct, or indirect, expected or unexpected), communication and information manipulation channels relevant to an update (either personal or mass communication), the time range of this process and the social system in which it is done [16].

According to the theory of updated ideas adoption and dissemination, individual and social factors related to the use of electronic communication applications is highly important. Those variables are different; however, they are mainly related to the individual's characteristics, their personality, the surrounding environment, and the interaction between an individual and its environment. They include the realized enjoyment, focusing attention when using an update, being accustomed to its use, behavioral intention of using it in the future, social impacts, and the extent of an individual's self-realization as a leader of opinion among those surrounding it.

Type and Approach of Study

This study is considered as one of the descriptive studies, which aim at collecting data by the university students' use, sample of study, for the portable devices, and their attitudes towards using them in the educational process, as well as studying some variables, which are related to the use: such as the gender, social status, educational stage, etc. This study depends on the survey approach as being an organized scientific effort that is used to obtain information or descriptions of the phenomenon, subject of study.

The methodological view of this study measures the variables related to the portable devices in the educational process as follows: (1) Criteria of measuring the intensity of use and the pattern of use. (2) Measuring the habits of use: not only through observing the audience's habits of using portable devices, but also knowing the factors which affect directing this use and its form. (3) Measuring motives and satisfactions, attitudes included in the research of electronic learning applications and mobile learning: in a way different from the familiar when measuring those motives and satisfactions of using the traditional methods of media and teaching. (3) Putting into consideration the variation of dimensions, which form the requirements that direct our behaviors when using the applications of portable devices between "psychological, social and cognitive".

Study Questions and Hypotheses

(The main hypothesis) There are statistically significant positive attitudes for students in terms of using the portable devices in the educational process (Questions):

- What are the most used portable devices owned by the study individuals?
- What are the most common places in which the students use their portable devices in the educational process?
- What are the most apparent applications of portable devices used by the students in the educational process?
- What are the most apparent purposes of using portable devices in the educational process?
- What are the students' perspectives on the importance of portable devices in the educational process?
- What are the most apparent students' attitudes towards portable devices in the educational process?

Society and Sample of Study

The researcher in this study uses the "Purposive Sample", as she chose, in this type of samples, cases that are believed to represent society from the aspect dealt with in the research. Thus, she applied the study to a sample consisting of 200 male and female students from Sharjah University. The percentage of

males was 50%, and the females' percentage was 50%. Regarding the age groups relevant to the sample of study, the percentage of those, whose ages ranged between 18-20 years old, was 46.5%, the percentage of those, whose ages ranged between 21-25 years old, was 51%, and finally, the percentage of the ones, whose ages 26 and above, was 2.5%. The percentage of the first-year students reached 22.5%, that of the second-year students reached 24.5%, that of the third year reached 33.5%, and finally, the percentage of the fourth-year students reached 19.5%. The percentage of those who belong to the scientific division reached 50% and the ones who belong to the theoretical division reached 50%. The percentage of the study individuals of bachelors reached 91.5%, the percentage of the married ones reached 8%, the divorced ones reached 0.5%, and there were not any widows among the study.

Data Collection Method

This study uses the questionnaire form, its validity of application and the extent of representing the study individuals, and then, it is shown to a number of professors, who are specialized in the field of media, as well as making the necessary amendments in light of their instructions, rephrasing some questions, adding other ones, as well as making a pre-test by the researcher to a 10% of the study sample, which resulted in rephrasing a number of sentences to become more suitable for the study sample, and thus, the virtual reliability of data is achieved.

To verify the stability of data, the researcher used the Test-Re-Test method, and re-applied 20 forms equivalent to 10% of the sample, and the percentage of stability reached 94, which indicates the clarity of the form, confidence in its validity for the final application, and thus, applying this form during the months of March, April, and May 2016. Data are statistically manipulated by using computer through the statistical analysis program of SPSS, and the following statistical transactions are applied, including Duplicate statistics, percentages, the arithmetic average, standard deviation, T-Test and F-Test.

Results of Study

The extent of using some applications available on portable devices

Table 1 shows the extent of using some applications that are available on portable devices. It is evident that the study individuals use the following applications: Podcast, Tumbler, I Movie, Face book, Keek, Blogger, Wiki, pages, Interest.

Figure 1 shows the uses of portable devices by the study individuals. It is evident that most of them use Laptops in learning, teaching and other purposes with a percentage of 79.50%, Tablet or iPad; it is evident that 41.5% of the study individuals use them in learning, teaching and other purposes, and 38.5% of them do not use them at all, and finally, for the mobile phones; it is evident that 59.5% of the study individuals use them in learning, teaching and other purposes.

Table 1: The Extent of Using Some Applications Available on Portable Devices

Application	I Use It		I Don't Use It		I Don't Know It	
	freq	%	freq	Application	freq	%
Instagram	191	95.50%	9	4.50%	0%	0.00%
Snapchat	184	92.00%	16	8.00%	191	95.50%
WhatsApp	197	98.50%	3	1.50%	0	0.00%
Twitter	146	73.00%	52	26.00%	0	0.00%
Messenger	104	52.00%	93	46.50%	2	1.00%
YouTube	183	91.50%	15	7.50%	3	1.50%
Podcast	66	33.00%	89	44.50%	2	1.00%
Blackboard	163	81.50%	34	17.00%	45	22.50%
Pinterest	49	24.50%	90	45.00%	3	1.50%
Tumblr	45	22.50%	115	57.50%	40	20.00%
Imovie	62	31.00%	96	48.00%	42	21.00%
Facebook	91	45.50%	101	50.50%	8	4.00%
Skype	133	66.50%	56	28.00%	11	5.50%
Keek	51	25.50%	124	62.00%	25	12.50%
Blogger	22	11.00%	117	58.50%	61	30.50%
WiKi	47	23.50%	100	50.00%	53	26.50%
pages	40	20.00%	93	46.50%	67	33.50%

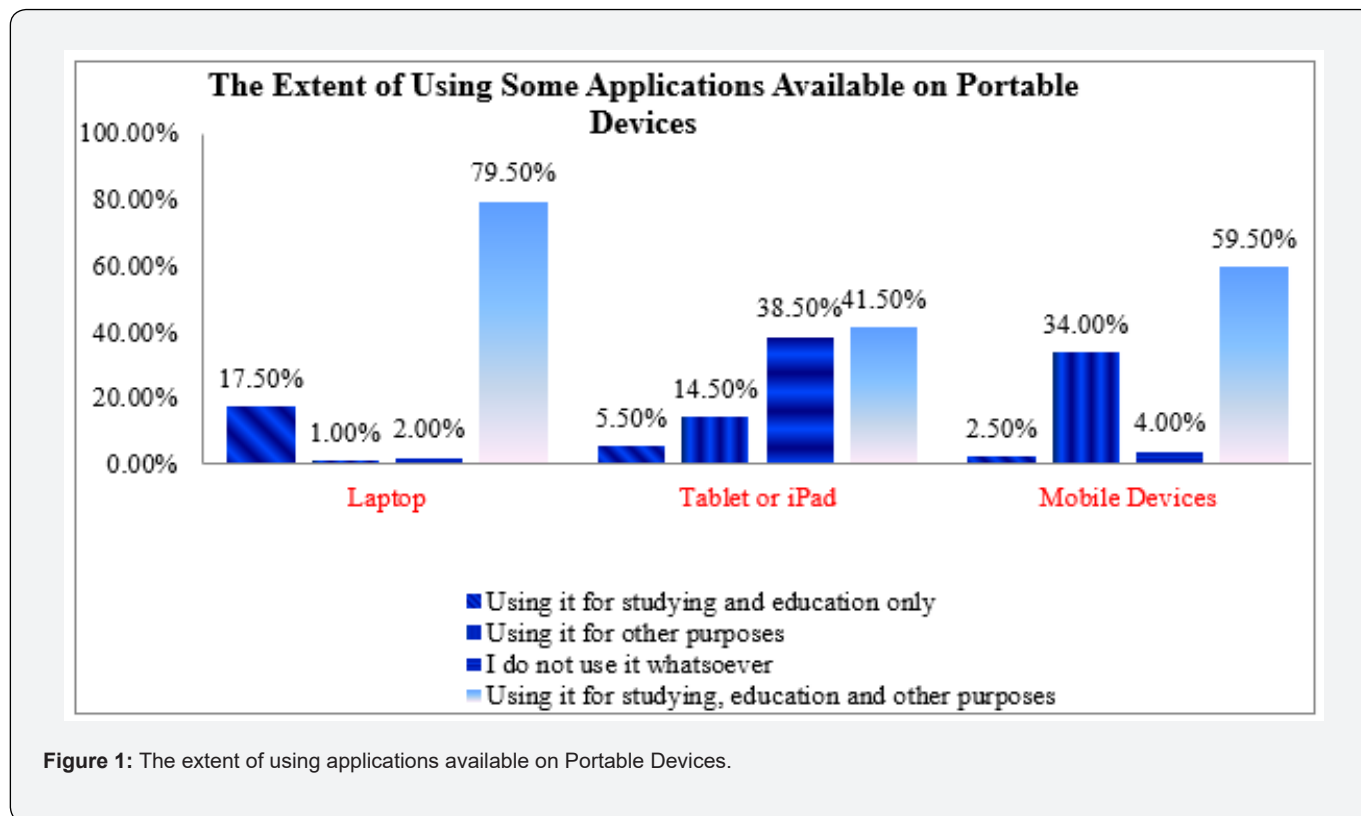


Figure 1: The extent of using applications available on Portable Devices.

The Degree of Portable Devices' Importance in the Student's Academic Success

Table 2 shows the degree of importance of portable devices

in the student's academic success, since it is evident that Laptop is very important with a percentage of 83.5%. Tablet or iPad is important with a percentage of 33.5%, followed by the mobile phones, which are very important with a percentage of 56.5%.

Table 2: The Most Apparent Purposes of Using Social Media

Portable Devices	Unimportant		No Opinion		Important		Very Important		Totally Unimportant	
	%	freq	%	freq	%	freq	%	freq	%	freq
0.00%	0	1.00%	2	1.00%	2	14.50%	29	83.50%	167	Laptop
3.00%	6	11.00%	22	20.50%	41	33.50%	67	32.00%	64	Tablet or iPad
0.00%	0	3.00%	6	8.00%	16	32.50%	65	56.50%	113	Mobile Phones

Moreover, it is evident that there are not any statistically significant differences between males and females in terms of the degree of importance related to the Laptop in the student's academic success since the value of Mann-Whitney reached 4788.000, and the significant value reached 0.421, which is higher than 0.05, as well as among the study individuals in the scientific and theoretical divisions in terms of the degree of Laptop's importance in the student's academic success since the Mann-Whitney value reached 4757.000, and the significant value was 0.357, which is higher than 0.05. Also, among the study individuals during the academic years in terms of the laptop's degree of importance in the student's academic success, as the value of the Kruskal-Wallis - K2 reached 1.309 and the significant value reached 0.727, which is higher than 0.05.

In addition, it is evident that there were not any statistically significant differences between males and females in terms of the degree of tablet or Ipad's importance in the student's academic success since the value of Mann-Whitney reached 4779.500, and the significant value reached 0.574, which is higher than 0.05. Also, among the study individuals in both the scientific and theoretical divisions in terms of the tablet or Ipad's degree of importance in the student's academic success since the value of Mann-Whitney reached 3721.000, and the significant value reached 0.001, which is lower than 0.05.

Whereas there were statistically significant differences among the study individuals during the academic years in terms of the degree of tablet or Ipad's importance in the student's academic success since the value of Kruskal-Wallis - K2 reached 9.117, and the significant value reached 0.028, which is higher than 0.05.

Moreover, it is evident that there were not any statistically significant differences between males and females in terms of the degree of mobile phones' importance in the student's academic success since the value of Mann-Whitney reached 4459.000, and the significant value reached 0.136, which is higher than 0.05. Also, among the study individuals in the scientific and theoretical divisions in terms of the degree of mobile phones' importance in the student's academic success since the value of Mann-Whitney

reached 4332.500, and the significant value reached 0.066, which is higher than 0.05. Also, among the study individuals during the academic years in terms of the degree of mobile phones' importance in the student's academic success since the value of Kruskal-Wallis - K2 reached 2.474, and the significant value reached 0.480, which is higher than 0.05.

Average of Performing Some Duties by Using Daily Devices

Table 3 shows the rate of performing some duties by using daily devices. It shows the duties performed by most of the study individuals daily: Doing assignments, reaching the materials available on the Blackboard or other programs, interacting with my colleagues, watching documentaries or listening to educational audio files, writing a note or entering a discussion, writing remarks, reaching the material related to the educational curricula and the duties performed by most of the study individuals once or twice a week: making presentations and movies related to the curricula, performing written tasks and reaching electronic books. To what extent are portable devices beneficial for the following purposes?

Table 4 shows the benefits and importance of portable devices from the study individuals' point of view according to the following order: (1) Marks Follow-up (2) Reaching websites on which the curricula we study are available. (3) Reaching the educational sources available in the university library. (4) Performing educational tasks. (5) Reaching the materials related to the curricula we study and being available on Blackboard and other relevant websites. (6) Participating in discussions on the curricula we study.

It is evident, in terms of reaching the educational sources available in the university library, that there are not any statistical significance between males and females in terms of the extent of benefit gained from portable devices in reaching educational sources available in the university library since the value of Mann-Whitney reached 4900.000, and the significant value reached 0.603, which is higher than 0.05, and among the study individuals in the scientific and theoretical divisions in terms of the extent of benefit gained from portable devices in reaching educational

sources available in the university library since the value of Mann-Whitney reached 4900.000 and the significant value reached 0.603, which is higher than 0.05. Also, among the study individuals during the academic years in terms of the portable devices'

benefit in reaching educational sources available in the university library, as the value of Kruskal-Wallis – K2 reached 3.605, and the significant value reached 0.307, which is higher than 0.05.

Table 3: The Average of Performing Some Duties by Using Daily Devices

Duties	Almost Daily		Once or Twice a Week		Once or Twice a Month	
	freq	%	freq	%	freq	%
Doing Assignments	124	62.00%	67	33.50%	9	4.50%
Reaching the items shown on the Blackboard and other programs.	129	64.50%	61	30.50%	10	5.00%
Interacting with my colleagues	153	76.50%	40	20.00%	7	3.50%
Making presentations and movies related to the curricula	64	32.00%	87	43.50%	49	24.50%
Watching documentaries or listening to educational audio files.	76	38.00%	69	34.50%	55	27.50%
Writing a note or entering a discussion.	73	36.50%	69	34.50%	58	29.00%
Performing written tasks.	75	37.50%	97	48.50%	28	14.00%
Writing remarks.	103	51.50%	75	37.50%	22	11.00%
Reaching electronic books.	69	34.50%	77	38.50%	54	27.00%
Reaching the subject related to studying curricula.	110	55.00%	80	40.00%	10	5.00%

Table 4: To What Extent is the Portable Devices Considered Beneficial for the Following Purposes

Benefits and Importance of Portable Devices	Beneficial		Unbeneficial	
	freq	%	freq	%
Reaching the educational sources available in the university library	184	92.00%	16	8.00%
Marks Follow-up	188	94.00%	12	6.00%
Performing educational tasks.	184	92.00%	16	8.00%
Reaching websites on which the curricula we study are available.	186	93.00%	14	7.00%
Reaching the materials related to the curricula studied and being available on Blackboard and other relevant websites.	182	91.00%	18	9.00%
Sending Assignments.	155	77.50%	45	22.50%
Participating in discussions on the curricula studied.	158	79.00%	42	21.00%

Regarding the marks follow-up, it is evident that there are not any statistically significant differences between males and females in terms of the extent of benefit gained from portable devices in marks follow-up, as the value of Mann-Whitney reached 5000.000, and the significant value reached 1.000, which is higher than 0.05, and also, among the study individuals during the academic years in terms of marks follow-up, as the value of Kruskal-Wallis – K2 reached 1.464, and the significant value reached 0.691, which is higher than 0.05.

In terms of performing educational tasks, it is evident that there are not statistically significant differences between males and females in terms of the extent of benefit gained from portable devices in performing educational tasks, as the value of Mann-Whitney reached 5000.000, and the significant value reached 1.000, which is higher than 0.05. Also, among the study individuals during the academic years in terms of performing educational

tasks, as the value of Kruskal-Wallis – K2 reached 1.464, and the significant value reached 0.691, which is higher than 0.05.

Whereas there were statistically significant differences among the study individuals in both the scientific and theoretical divisions in terms of the extent of benefit gained from portable devices in performing educational tasks, as the value of Mann-Whitney reached 4600.000, and the significant value reached 0.038, which is higher than 0.05.

Regarding the phrase “Reaching websites on which the curricula we study are available”, it is evident that there are not any statistically significant differences between males and females in terms of the extent of benefit in reaching the websites on which the curricula we study are available, as the value of Mann-Whitney reached 4900.000, and the significant value reached 0.580, which is higher than 0.05. Also, among the study individuals in both the

scientific and theoretical divisions in terms of the extent of benefit gained from portable devices and, among the study individuals during the academic years in terms of reaching websites on which the curricula we study are available since the value of Kruskal-Wallis – K2 reached 0.246, and the significant value reached 0.970, which is higher than 0.05. Reaching the materials related to the curricula we study and being available on Blackboard and other relevant websites.

There are no statistically significant differences between males and females in terms of the extent of benefit in reaching the materials related to the curricula studied, and being available on Blackboard and other relevant websites, as the value of Mann-Whitney reached 4700.000, and the significant value reached 0.139, which is higher than 0.05.

There are no statistically significant differences among the study individuals in the scientific and theoretical divisions in terms of the extent of benefit gained from portable devices in reaching the materials related to the curricula studied, and being available on Blackboard and other relevant websites, as the value of Mann-Whitney reached 4800.000, and the significant value reached 0.324, which is higher than 0.05.

There are no statistically significant differences among the study individuals during the academic years in terms of reaching the materials related to the curricula studied and being available on Blackboard and other relevant websites since the value of Kruskal – Wallis K2 reached 1.773, and the significant value reached 0.621, which is higher than 0.05.

Regarding the phrase “Sending Assignments”, there were statistically significant differences between males and females in terms of the extent of benefit gained from portable devices in sending assignments, as the value of Mann-Whitney reached 4350.000, and the significant value reached 0.028, which is lower than 0.05. Also, in terms of the extent of benefit gained from portable devices for participating in discussions on the curricula studied, the value of Mann-Whitney reached 4300.000, and the significant value reached 0.015, which is lower than 0.05.

Whereas it is evident that there were not any statistically significant differences among the study individuals in both the scientific and theoretical divisions in terms of the extent of benefit gained from portable devices in sending assignments, as the value of Mann-Whitney reached 4850.000, and the significant value reached 0.612, which is higher than 0.05. Also, among the study individuals during the academic years in terms of sending assignments, as the value of Kruskal – Wallis – K2 reached 3.966, and the significant value reached 0.265, which is higher than 0.05.

Concerning participation in discussions on the curricula studied, it is evident that there are no statistically significant differences among the study individuals in both the scientific and theoretical divisions in terms of the extent of benefit gained from portable devices for participating in discussions on the curricula

studied, as the value of Mann-Whitney reached 4700.000, and the significant value reached 0.299, which is higher than 0.05. Also, among the study individuals during the academic years in terms of the discussions on the curricula studied, as the value of Kruskal – Wallis – K2 reached 2.803, and the significant value reached 0.423, which is higher than 0.05.

Table 5 shows the students' attitudes towards using portable devices in the educational process, and it is evident that most phrases are agreed upon, and they came according to the following order: (1) Portable devices helped me develop my standard of education. (2) Portable devices helped me reach my friends no matter how far they were. (3) Portable devices make me in continuous contact with my colleagues. (4) Portable devices make me aware of everything happening in the university. (5) Portable devices help me obtain information quickly. (6) Portable devices helped me in forming student groups studying together. (7) Portable devices enhance students' skills in numerous fields including communication skills and research. (8) Being available for use in the field of communication and exchanging subjects of curricula round the clock. (9) Portable devices make me in continuous contact with my professors. (10) Portable devices help in documenting subjects and referring to them when needed. (11) They reduce the specified time of completing lessons, either in classes or elsewhere. (12) They develop the skills of the teacher educationally or technologically. (13) They enable students, professors, and parents to participate together in the educational process. (14) Our university encourages us to learn via portable devices. (15) My professors encourage me to use portable devices for studying. Students did not express their opinions about the idea stating that using portable devices can replace the teacher [17-36].

Conclusion

It is evident that the study individuals use the following applications: Instagram, Snapchat, WhatsApp, Twitter, Messenger, YouTube, Black Board and Skype. It is also evident that they do not use the following applications: Podcast, Tumblr, iMovie, Facebook, Keek, Blogger, WiKi, pages, Pinterest. Moreover, it is evident that most of them use laptops in studying, teaching and other purposes with a percentage of 97.5%, Tablet and iPad are used with a percentage of 41.5% by the study individuals in studying, teaching and other purposes, and 38.5% of them do not use them at all, and finally, it is evident that 59.5% of the study individuals use mobile phones in studying, teaching and other purposes. Regarding the degree of portable devices' importance in student's academic success, it is evident that laptop is very important with a percentage of 83.5%, tablet and iPad are important with a percentage of 33.5%, followed by mobile phones, which are very important with a percentage of 56.5%. It is concluded that there were not any statistically significant differences between males and females in terms of the degree of importance of laptop or mobile phone in the student's academic success, while there were statistically significant differences in terms of tablet or iPad.

Table 5: Students' Attitudes Towards Using Portable Devices

Phrases	Extent of Agreement										Neutral
	Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		
	%	freq	%	freq	%	freq	%	freq	%	freq	
Portable devices helped me develop my standard of education.	66.00%	132	28.00%	56	5.50%	11	0.50%	1	0.00%	0	4.6
Portable devices make me in continuous contact with my professors.	50.50%	101	33.00%	66	13.00%	26	3.50%	7	0.00%	0	4.3
Portable devices make me in continuous contact with my colleagues.	63.50%	127	30.00%	60	4.00%	8	2.50%	5	0.00%	0	4.54
Portable devices make me aware of everything happening in the university.	59.50%	119	35.00%	70	4.50%	9	1.00%	2	0.00%	0	4.53
Necessary technical help is available in my university for using portable devices.	48.50%	97	28.50%	57	13.50%	27	8.50%	17	1.00%	2	4.15
I participate actively during classes in which portable devices are used.	49.00%	98	25.50%	51	21.00%	42	4.00%	8	0.50%	1	4.19
My professors encourage me to use portable devices for studying.	36.00%	72	26.50%	53	20.50%	41	13.00%	26	4.00%	8	3.77
Using portable devices inside the classroom hinders the educational process.	41.50%	83	27.00%	54	9.50%	19	17.50%	35	4.50%	9	3.84
Portable devices enabled me to feel self-confident towards my learning.	40.00%	80	33.00%	66	18.50%	37	8.00%	16	0.50%	1	4.04
Portable devices helped me organize my time and studying.	36.00%	72	33.00%	66	18.00%	36	9.50%	19	3.50%	7	3.88
My learning skills are improved by virtue of portable devices (taking notes, etc.).	40.50%	81	32.00%	64	16.50%	33	10.00%	20	1.00%	2	4.01
Portable devices give me more motivation to attend classes.	36.00%	72	35.00%	70	19.50%	39	8.50%	17	1.00%	2	3.97

Portable devices help me obtain information quickly.	59.50%	119	33.00%	66	5.00%	10	1.00%	2	1.50%	3	4.48
Portable devices helped me reach my friends no matter how far they were.	67.50%	135	24.50%	49	7.00%	14	0.50%	1	0.50%	1	4.58
Portable devices helped me in forming student groups studying together.	55.50%	111	31.50%	63	10.00%	20	2.00%	4	1.00%	2	4.38
Portable devices are better than books and traditional methods of teaching.	42.00%	84	24.50%	49	15.00%	30	14.00%	28	4.50%	9	3.86
Applications of portable devices can replace the teacher.	34.00%	68	21.00%	42	13.00%	26	20.50%	41	11.50%	23	3.46
The whole curricula can be uploaded on an electronic application saved on portable devices.	41.50%	83	30.50%	61	15.50%	31	9.50%	19	3.00%	6	3.98
Our university encourages us to learn via portable devices.	34.50%	69	28.50%	57	21.00%	42	13.00%	26	3.00%	6	3.79
Portable devices help in documenting subjects and referring to them when needed.	47.50%	95	37.00%	74	11.50%	23	4.00%	8	0.00%	0	4.28
Portable devices enhance students' skills in numerous fields including communication skills and research.	51.50%	103	35.50%	71	11.00%	22	2.00%	4	0.00%	0	4.37
Being available for use in the field of communication and exchanging subjects of curricula round the clock.	52.00%	104	37.00%	74	8.00%	16	2.00%	4	1.00%	2	4.37
Help in reducing costs of traditional education.	45.50%	91	29.00%	58	14.00%	28	8.00%	16	3.50%	7	4.05
They develop the skills of the teacher educationally or technologically.	46.50%	93	33.00%	66	15.50%	31	4.00%	8	1.00%	2	4.2

They enable students, professors and parents to participate together in the educational process.	44.50%	89	37.50%	75	13.00%	26	3.50%	7	1.50%	3	4.2
They reduce the specified time of completing lessons, either in classes or elsewhere.	48.50%	97	35.50%	71	11.50%	23	3.00%	6	1.50%	3	4.27

It is evident that the duties performed by most of the study individuals are: Performing educational tasks, reaching materials available on Black Board or other program, interacting with my colleagues, watching documentaries or listening to educational audio files, taking a note or entering a discussion, writing remarks, reaching materials related to curricula, and the duties performed by most of the study individuals once or twice a week are: making presentations and movies related to the curricula, performing educational tasks and reaching electronic books.

Regarding the importance and benefits of portable devices from the study individuals' perspectives, they came as follows: (1) marks follow-up. (2) reaching websites on which the curricula are available. (3) reaching educational sources available in the university library. (4) performing educational tasks. (5) reaching materials related to the curricula studied and being available on Blackboard and other relevant websites. (6) participating in discussions on the curricula studied. (7) sending assignments. It is evident that there are no statistically significant differences between males and females in terms of the extent of benefit gained from portable devices in reaching educational sources available in the university library, and among the study individuals during the academic years.

The hypothesis of having positive attitudes shown by students in terms of using portable devices in education according to the following order: (1) Portable devices helped me develop my standard of education. (2) Portable devices helped me reach my friends no matter how far they were. (3) Portable devices make me in continuous contact with my colleagues. (4) Portable devices make me aware of everything happening in the university. (5) Portable devices help me obtain information quickly. (6) Portable devices helped me in forming student groups studying together. (7) Portable devices enhance students' skills in numerous fields including communication skills and research. (8) Being available for use in the field of communication and exchanging subjects of curricula round the clock. (9) Portable devices make me in continuous contact with my professors. (10) Portable devices help in documenting subjects and referring to them when needed. (11) They reduce the specified time of completing lessons, either in classes or elsewhere. (12) They develop the skills of the teacher

educationally or technologically. (13) They enable students, professors, and parents to participate together in the educational process. (14) Our university encourages us to learn via portable devices. (15) My professors encourage me to use portable devices for studying.

Recommendation

The study concluded that the sample of study agreed on the necessity of encouraging the Arab universities to use techniques in classrooms more than outside, and that teaching the curricula by using the portable devices will develop the communicational skills of the university students. Moreover, they agreed on "teaching most of the curricula on media must be carried out via the social networking sites, even if there are not any statistically significant differences between males and females" in terms of the fact that "Arab universities do not provide applications for its software and curricula on the portable devices", as well as the idea of "teaching curricula by using portable devices need capabilities that are unavailable in our universities". In addition, "there are not any sufficiently qualified professors in our university to teach the curricula by using the portable devices", as well as "the university students consider the portable devices as being unbeneficial and more entertaining than educational", and in terms of "teaching curricula by using the portable devices will develop the communicational skills of the university students". Moreover, in relation to the idea of "using the portable devices in teaching the students educational curricula will distract them from learning their main lessons", in terms of "the social networking sites do not need special curricula for them to be taught", "teaching most of the curricula on media must be carried out via the social networking sites", and "Arab universities must encourage using the techniques in classrooms more than outside".

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