

The Effect of Using I Phones Applications on Students Academic Achievement

اثر استخدام تطبيقات الهواتف الذكية في التحصيل الأكاديمي لدى الطلبة

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Abstract

The study aims at finding out the effect of using I Phones Applications on academic achievement of second-year students in comprehension. The study sample consists of (40) Iraqi EFL students enrolled in the English language department at College of Basic Education at Diyala University. It is distributed into two groups: the experimental group (20 students) is taught by using I Phones Applications and the control group (20 students) is taught by using the traditional method. The main tool of the present study is measured by using an achievement test. Means, standard NCOVA were used to analyze the data. The study analysis reveals the following results: There are statistical significant differences in the mean scores between the experimental group students, and the control group students in favor of the experimental group. I Phones Applications, academic achievement

المخلص :

هدفت الدراسة الحالية الى الاجابة على ما أثر استخدام تطبيقات الهواتف الذكية في التحصيل الأكاديمي لطلبة المرحلة الثانية. وتألقت عينة الدراسة من (٤٠) طالبا من المرحلة الثانية في قسم اللغة الانكليزية بكلية التربية الأساسية في جامعة ديالى، العراق تم توزيعهم الى مجموعتين: المجموعة التجريبية وتم تدريس مادة الاستيعاب باستخدام تطبيقات الهواتف الذكية، وتضم (٢٠) طالبا، والمجموعة الضابطة وتم التدريس بالطريقة المعتادة السائدة، وتضم (٢٠) طالبا . وقامت الباحثة بقياس التحصيل الأكاديمي كاداة رئيسية للبحث، وتم تحليل البيانات باستخدام تحليل التباين المصاحب (ANCOVA). وأظهرت نتائج التحليل الإحصائي الاتي: وجود فروق ذات دلالة إحصائية في التحصيل الأكاديمي في الاختبار البعدي لأفراد عينة الدراسة، إذ أن هناك أثراً لاستخدام تطبيقات الهواتف الذكية في التحصيل الأكاديمي لدى الطلبة الذين تم استخدامه معهم. الكلمات المفتاحية التحصيل الأكاديمي , تطبيقات الهواتف

1. Introduction

People across the globe are accolade a sight for development of information societies, adopting policies and strategies to encourage this development. Education is of vital importance in the knowledge society, as a source of basic skills, as a foundation for development of new knowledge and innovation, and an engine for socio-economic development. With the advances in wireless and communication technology, smartphones have become widely available, more convenient, and relatively cheap (Wu, W. H, et al. ,2012). The researchers believe that smart phone applications are modern educational tools that help the learner to learn, think, memorize and remember by drawing a mental picture of everything related to the educational process, and also help him to benefit from his previous experiences in educational situations. Also, the knowledge of using smart phone applications for the learner has an important role in the learning process and processing information entering the brain in different patterns, which results in different outputs, so knowing them

facilitates the learning process by helping the teacher choose the appropriate educational methods, which contributes to the development of his educational ability.

Mobile technologies are playing an increasingly important role in college students' academic lives (Chen and Denoyelles, 2013,145) Mobile devices like smartphone make opportunities to extend teaching and learning locations from traditional classrooms to almost anywhere (Kirschner, et al., 2004,79). Due to the fast growth in information and communication technologies and advances in electronic learning technologies, mobile technologies has created a challenge for higher education institutions who want to provide students with high quality and sustainable technology environments.

One of the important demands is that there be an improvement in the self-learning of learners by relying on themselves to memorize, remember and understand, that is, to achieve an effective educational role for students and to think and become more independent in making their decisions, and all this comes through increasing the variety of educational means, as a competent teacher is the one who can constantly introduce new and know a lot of learning entrances and methods in a way that makes the learner's position

١.١ I phones Applications: An Overview

I phones applications today have been around since last six years when Apple introduced the smartphone in mass consumer market, but in fact, the smartphone has been in market since 1993 (S. S. Subramanian, M. Sindhuja Rajesh, 2017). The I phone applications time is isolated into three primary stages. The absolute first smartphone "Simon" from IBM in 1993. Blackberry is considered as a revolutionary gadget of this period, it presented numerous highlights including Email, Internet, Fax, Web perusing and Camera. Apple uncovered its first PDA in 2007 (Pei Zheng, Lionel M. Ni, 2006). End of 2007 Google revealed its Android Operating System with the goal to approach the Smartphone market (Suman Jain et al, 2016).

.Definitions

Mobile learning (m-learning) is defined differently by people, early perspectives of m-learning were focused on technology, and defined as the delivery of learning by means of mobile devices such as mobile phones, PDAs and digital audio players, as well as digital cameras and voice recorders, pen scanners (Keskin and Metcalf, 2011, 256)

Mobile learning can be defined as a form of e-Learning, which can take place anytime, anywhere with the help of a mobile communication device such as a mobile phone, a personal digital assistant (PDA), I pod or any such small portable device (Kadirire, 2009, 37).

.Technology and education

Individuals learn in a variety of ways. Hypotheses with respect to how the mind processes and stores data are rich. Data handling shows how students process data, recollect content from an earlier time, and tackle issues. The understudy could have taken in this data mistakenly previously, or data from one source may repudiate other data found inside a similar source. Mayer's (2009) research found that students who have access to information presented in both verbal and visual formats generated more creative solutions to problems than students who only received visual formation from mobile devices such as I Pads and smartphones. Presenting S.H.S and college understudies to the utilization of cell phones and applications will furnish them with employment aptitudes that may give them advantage over others while vying for occupations in the working environment. Instruction related to smartphones would also teach students how to use mobile applications that have the potential to support their learning. This type of classroom engagement would help to circumvent the age-old question of "Why is this topic important?" Teachers could use smartphones as a focal point for instruction while at the same time preparing students for careers requiring the use of sophisticated communication technologies (Kearney et al., 2012).

.Smartphone Use in Higher Education

Access to smartphone application devices by university students continues to grow rapidly. The cost of these devices has decreased while their ease of use has increased. A study conducted by (Chen & Denoyelles, 2013) at the University of Central Florida found that of 1,082 students surveyed, 79% owned a smartphone. A comprehensive study of 100,000 students from 195 college campuses conducted by Dahlstrom in 2012 found that most students still owned laptop computers (86%). Sixty-two percent of these same students reported

owning smartphones while 15% reported owning tablets. More importantly, 67% of those students who reported owning smartphones or tablets indicated that they used them for academic purposes.

This percentage nearly doubled over the percentage of students reporting the use of mobile devices for academic purposes in 2011. There are many smartphone applications that university students can use to support their learning. Looks like, Web 2.0 technologies allow students to access "Podcasts, oral quizzes and tests Mobile Geotagging sites, Digital Storybooks, photo projects, digital report systems" (Kolb, 2011).

.The advantages

Increased Connectivity: Smartphones have revolutionized the way we communicate with each other. With just a few taps on our screens, we can send text messages, make phone calls, or video chat with people across the globe.

Improved Access to information: Smartphones have made it easier than ever access information. With the internet at our fingertips, we can quickly search for answers to our questions, check the weather, or find directions to a new restaurant.

Enhanced productivity: I phones applications have become essential tools for many people in the workforce. They allow us to stay connected to our work, even when we're not in the office. With email, messaging, and productivity apps, we can stay on top of our tasks and be more productive than ever before.

.Disadvantages

Addiction: Smartphones applications have the potential to be addictive, and many people struggle to put them down. The constant notifications, social media updates, and other distractions can make it difficult to stay focused on other tasks.

Sleep Disruption: The blue light emitted by smartphones can disrupt our natural sleep patterns, making it harder to fall asleep and stay asleep. This can lead to fatigue, irritability, and other health problems .

.٣ Methodology

.٣,١ Sample of the study

The sample of this study includes 40 students representing of 28% of the population are chosen purposefully from the second stage students . Two divisions (A,C) are chosen randomly to represent the two groups of the study (the experimental group and the control group); division (A) included 20 students is chosen to be the experimental group and division (C) included 20 students to be the control group. Table (1) below, shows the distribution of the sample according to the independent variables for the study and the number of students in each division.

Table(١)

Distribution of the sample according to the independent variables and the number of students in each group

Total	Students		Independent variables	Group
	Female	Male		
20	11	9	I Phones Applications method	Experimental
20	8	12	Traditional method	Control
40				

.٣,٢ The Model

The researcher develops a test to measure academic achievement in the light of some previous studies. In this study the researcher set the objective for the study unit and analyzed for the developing skills book The test has been distributed to jury members such us Sundus Talib, Samia Mohamed and Dalia Husain. They modified the test to take its final version. The researcher uses the test on an exploratory sample 10 students of the second year students in English language department at college of basic education, during the second course of the academic year 2022/2023 and the reliability coefficient ronbach's alpha which was 0.84. Quazi-experimental Design has been used in this study with two groups: experimental and control, so that i Phones applications method is applied on the experimental group students, while the traditional method was applied on the control group students.

٣,٣ Study design

The current study includes the following variables:
method. traditional method and dependant variables.

.I Phones applications

All are represented in measuring academic achievement . The study will follow the pre- test control group design, and it may be expressed by using the following symbols:

Experimental group	R	O ₁	X	O ₂
Control group	R	O ₁	—	O ₂

Whereas:

O1: The pre test of academic achievement .

O2: The post test of academic achievement .

X: The independent variables (I Phones Applications method).

:Control group (regular method).

٣,٤ Statistical Methods.

ANCOVA used to

answer the two question of the study and to test the hypothesis related to them.

٣,٥ Analysis

This study aims at finding out the effect of using i Phones applications method on students Academic Achievement on second years in English language department at Basic Education College at Diyala University.

Results concerning the research question: (What is the effect of using I Phones Applications on students Academic Achievement second year in English language Department Basic Education College at Diyala University.

To answer the research question, means and standard deviations have been calculated for the students answers on the an academic achievement for the second level students of the English language Department in the College of Basic Education in Diyala University differences between the average of the experimental group and the control group in both pre and post- tests, and Table (2) shows that .

Table(٢)

Means and standard deviations of the sample answers on the pre-post-tests academic achievement

Group	N	Pre-Test		Post-Test	
		Mean	Std. Deviation	Mean	Std. Deviation
Experimental	20	15.48	2.67	35.49	1.46
Control	20	14.56	2.64	31.62	1.93

Table (2) shows that the students who are taught by i Phones applications method have the highest mean on achievement comprehension post-test 35.49, while the mean of the control group was the lowest one 31.62. In order to answer the research question, the researcher uses ANCOVA, and Table 3 presents the results as follows :

Table(٣)

The results of ANCOVA of the students' Academic achievement comprehension performance on the post test

Source	Sum of Squar	DF	Mean Squar	"F"	Sig.
Pre-Test	61.785	1	62.793	11.78	0.000
Teaching Method	324.674	1	324.653	42.164	0.000
Error	151.164	47	2.663		
Corrected Total	537.623	49			

Table (3) shows a significant differences with the level (0.05) in the academic achievement , the value of " F " was (42.164) which means rejecting the null hypothesis that states the following:

"There are no significant differences at the level (0.05) of using i Phones applications method in the academic achievement , when it is compared with the traditional method of the second year students in English language Department at Basic Education College, at Diyala University."

The adjusted means and the standard error on the post academic achievement are also calculated for the experimental group that studied the comprehension material by using i Phones applications method and the control group that studied using the traditional method and Table (4) shows that

Table(٤)

The adjusted means and standard error for the performance of the members of the study sample on academic achievement post test

Group	Mean	Std. Error
Experimental	35.49	0.30
Control	31.62	0.30

Table (4) shows that the adjusted means for the experimental group is 35.49 and the standard error is 0.30 but the adjusted means of the control group is 31.62 and the standard error 0.30, which means that the significant differences is in favor of using i Phones applications as teaching method.

٣,٦ Discussion of Analysis

The results indicates that there are statistical significant differences in academic achievement post- test for the sample individuals, where there is an impact of using i Phones applications on academic achievement to the second level students who used i Phones applications method . These results may be caused by many factors, one of these factors, I phones applications method is a form of the active learning forms that gives the first role to the teacher, who tells i Phones applications to his/her students and ask them for deep thinking about its subject as well as focus on the values that indicate it, and comment on what it includes. Afterwards the teacher reinforces these comments as a special mental activity. Some of the reasons that helped i Phones applications method to succeed according to the researcher, using i Phones applications interests the students, satisfies their natural liking of stories, and causes happiness among them, using i phones applications class can be more interactive than the traditional lecture, can encourage contacts between students and faculty, it can develop reciprocity and cooperation among students. I Phones applications develop the students linguistic and gives them information that adds to their experience through what the story holds of vocabulary and expressions also i Phones applications encourage the students to face their friends in naturally inside and outside college.

The researcher explains that there are differences with a statistical indication in the listening comprehension skill, because of the contribution in i phones applications method in developing the listening comprehension. This done by generating a stronger motivation towards learning, investing the students' energy in developing their knowledge levels. It also leaves positive ideas about the comprehension material.

This research includes the impact of mobile learning applications on undergraduate students' academic achievement, attitudes toward mobile learning. Mobile learning has significantly positive effect on academic achievement to traditional learning in this research. The results are similar to those of Koh, Loh, and Hong (2013,137) who have found that academic achievement and self-directed learning of students was effected with the smartphone- enable curriculum, also Kukulska-Hulme, Traxler (2007,335) found the development in technology and proliferation of devices support and promote teaching and learning, and research on smartphone-based learning has expanded significantly, and the results are similar to those of Oberer and Erkollar (2013,174) and Hwang and Chang (2011,293). Similarly, Hwang and Chang (2011,122) indicate that mobile learning not only catches students' interaction but also increases their success. Chu, Hwang, Tsai and Tseng (2010,75) have found that students have positive attitudes toward mobile learning.

٤. Conclusions

It was concluded that:

١) The use of smartphone applications has actively contributed to enhancing self-learning in the subject of assimilation for students.

٢. The use of smartphone applications has greatly contributed to minimizing the effort spent by the subject teacher in the process of correcting errors and providing feedback for the development of knowledge and theoretical concepts of self-learning for students .

٣. Smartphone applications are one of the best educational tools used when promoting self-learning in the subject of assimilation for students.

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