# The Reality of Using Smart Device Applications in Learning Applications by University Students at the College of Basic Education in Kuwait

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## Abstract

The study aimed to reveal the reality of the use of smart device applications by university students in Kuwait for smart device applications in learning, and the study sought to know the impact of each of the variables: (gender, rate of use) on this. The researcher used the survey descriptive method to achieve the objectives of the study. The study sample consisted of (385) university students who were randomly selected. The researcher prepared a study tool to collect information, consisting of (35) paragraphs divided over three axes, and applied it in the second semester of 2020/2021. The results of the study showed that all the axes of the study tool came to an average degree, the focus of the use of smart device applications in learning to an average degree, with a mathematical average of (2.093), and the results of the study also showed that the focus of the importance of using smart device applications in learning came also an average, with a mathematical average of (2.215). The results showed no statistically significant differences at the level ($\leq 0.05$) $\alpha$in the study variables (gender, utilization rate).

**Keywords:** Reality of Use, Basic Education College Students, Smart Device Applications, Kuwait

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## 1. Introduction

The technological development in our time has become many positives in different aspects of life in general, and in the educational system in particular, as a result of the many innovations and its continuous development, and many challenges have emerged for the workers in the field of education, to try to take advantage of all that is new in the field of technology to improve the outcomes of the educational process, and to catch up with passengers.

In recent years, public and higher education institutions have sought to seize the opportunity and take advantage of technological innovations, digital communications and their applications, resulting in the emergence of a variety of terms and philosophies in the educational process, including e-learning and management systems, virtual reality, integrated learning and mobile learning (Mohammed, 2012).

With the widespread use of smart devices around the world, the number of mobile subscribers is expected to approach the world's population in the near future, and the number of broadband Internet subscribers, mostly via mobile phones, is expected to exceed 4.3 billion (International Telecommunication Union, 2017).

Mobile technology and smart devices have become very popular worldwide and for all users of all categories, including students at all levels of education (Marta & Antoni, 2016; Branka, Milan, Jelena, & Edit, 2016) revealed that the average spend of university students using smart devices per day is 8:34 hours, as the use of smart devices has become an important part of daily life for the majority of university students.

Saleh (2015) pointed out that with the widespread use of internet via mobile phones and the speed of networks and the emergence of 4G 3G services, in mobile networks and supported by tablets, as well as the emergence of applications that allow both the teacher and learner to use LMS learning management systems via smart devices directly, the student no longer has to sit down to his personal computer for hours To interact with the teacher or follow a virtual class, the same can be done easily via tablet or mobile phone, so that it can resolve the assignment,

send files, or communicate simultaneously and asynchronously with the teacher and colleagues, use various LMS learning management system tools across his mobile device, as well as use of learning resources across mobile devices, and various applications.

In recent years, many universities around the world have been keen to invest in the proliferation of smart mobile devices in support of the educational process in various aspects, using the options provided by these smart devices such as: SMS, mobile learning management systems such as Moodle's Moodle system, Blackboard, and various applications that attract learners to integrate into the electronic environment they provide such as: Facebook, Twitter, and WhatsApp. Universities have relied on the fact that most of today's university students have used smart mobile devices for different types, whether mobile phones or tablets PC (Al-Ajrami, 2019; Al-Jahni, 2014) before, the researcher conducted the study to reveal the reality of the use of university students in the College of Basic Education in Kuwait for applications of smart devices in learning, because of the importance of using smart devices and their applications in learning higher education for which it has positive results on learners and on the learning process due to what has been revealed by many studies, and the researcher will reveal the reality of their use in learning.

## 2. Theoretical Framework

### *2.1 The Concept of Smart Devices and Their Applications and Mobile Education*

In the era of informatics and the enormous technological revolution and in the race to keep up with the technological developments, life has become easier and more luxurious, and because in the era of the development and reform of the educational system, many scientific and research institutions are striving for education technology, and in the light of both e-learning and distance learning, the concept of smart devices in education or "mobile learning", a technique that allows knowledge at any time and place (Zahari & Suleiman, 2018).

The concept of mobile learning is one of the most recent concepts that have emerged as a product of the proliferation of smart devices, it focuses on the use of technologies available with smart mobile devices to

communicate information outside the classroom, as a unique e-learning pattern complementary to the traditional learning process, in order to provide a new type of education adapted to the changing circumstances created by the information age, commensurate with the characteristics and needs of learners, at the lowest cost, and within the framework of temporal and spatial freedom, which gives more freedom to the learning process (Sawei, 2015).

Al Harbi (2016, p. 4) defined smart devices as "modern telephony devices with a package of programs, applications for audio and written visual communication, and includes the capabilities of computers and internet use."

Al-Alawia (2015, p. 271) defined it as "an advanced operating system equipment such as computer systems, providing a range of services (communication, ferry and news, and sharing software files and texts containing images and sounds) and including space for installing software and electronic applications."

Al-Balassi (2014, p. 181) defined it as "mobile phones with advanced features compared to traditional phones, through the time period in which the phone is put on the market, and is characterized by a range of free and non-free applications and programs used in the process of teaching and learning."

Al-Ajri (2019, p. 46) defined smart device applications as "software that works on smart mobile devices by downloading them from the application store of the device's operating system, and these applications constantly need internet connectivity, and they help to create a kind of collaboration and communication between teachers and students, and these applications have the multiple capabilities that they provide to their users through quick direct communication to anyone anytime, anywhere, and allows the possibility to view different multimedia elements and store."

Al-Samawi, Al-Wahad, Mashal, and Humans (2015, p. 4) referred to the definition of Mobile Learning as "a form of distance learning systems, an extension of e-learning, and the word "Mobile" means mobile, i.e., mobile learning, hence the term "Mobile Learning" can be

translated into mobility education, mobile education, mobile education, mobile education, mobile education, mobile or hand-converted.

Zahari and Suleiman (2018, p. 122) defined mobile education as "a new technology based on the use of mobile wireless devices to communicate between lecturers (teachers) and students (learners) and websites, through their services, which are: SMS (SMS), MMS, WAP, Bluetooth, Video Communication, Software Platform Services, GSM, for the purpose of achieving flexibility and interaction in teaching and learning, anytime, anywhere."

### *2.2 Advantages and Benefits of Using Smart Device Applications in the Learning Process*

The use of smartphone applications in education is one of the most important objectives of mobile learning referred to by many educational studies and literature, because of its advantages and capabilities that contribute to the management of learning systems, management of educational content, management and planning of courses through web technology, freedom of learning and training inside and outside the walls of educational institutions and training halls, they provide content anywhere, anytime, and improve the interaction processes between the learner and the teacher, by asking specific questions or Exchange of views and information between the teacher and the learner on the one hand and between learners and others on the other hand before, during and after the school day, through learning processes based on the learner, as well as facilitate collaborative learning among learners through simultaneous and simultaneous communication, while providing personal support for learning, motivation and motivation towards learning and providing concise content that reaches the learner regularly at anytime and anywhere (Al-Ajrami, 2019).

Saleh (2015) referred to smart device applications used in classrooms and training, including: (classroom management applications, applications for communication and educational presentation management, educational content development applications), and applications that allow both teachers and learners to use LMS learning systems via smart devices directly to access courses, or educational

content that makes it easier for students to learn because of their flexible use simultaneously and in concurrently.

A number of studies have identified the educational benefits of using smart devices in the learning process, including (Ibrahim, 2016; Al-Subai'i & Al-Ghamdi, 2014; al-Arishi & Al-Attas, 2012):

- Use conversation messaging services to get information easier and faster than phone conversations or e-mail such as: lecture schedules or test schedules, as well as sending ads and administrative decisions.
- Through smart devices, students can conduct the learning process anywhere, anytime, by broadcasting lectures and discussions directly to students wherever they are.
- Most smart devices carrying notes and e-books are lighter, smaller and easier to carry than bags or laptops.
- The possibility of placing a lot of smart devices in the lecture hall unlike computers that require a lot of space.
- Most smart devices can take notes on them by hand, as they work with touch, making them much easier than keyboard and mouse devices.
- Spell correction in smart devices while handwriting helps improve handwriting skills.
- Attract learners who have dropped out of school so they can enjoy learning using smart devices.
- Learners use this technology to ensure that as many students as possible participate in learning through the smart devices they use frequently in their daily lives.
- Smart devices help students and researchers create a small library of e-books and lectures.
- Provides educational platforms in all areas and applications for virtual classroom management.

Al-Omari (2014) stated that there are many smart and mobile devices that can be used in the learning process and benefit from them, through

which learners and teachers interact, including laptops, digital aids, mobile phones, microcomputers and electronic voting devices.

### *2.3 Features That Increase the Effectiveness of Learning Across Mobile Smart Devices*

Ibrahim and Abdo (2016) pointed out that one of the most important characteristics of smart devices, individual, where the design of smart devices is characterized by supporting individual learning and taking into account individual differences between learners, and the ability to retrieve, where learners have the ability to remember and retrieve knowledge without technology being hindered, as well as allowing communication with colleagues, teachers and specialists.

Schauab and Goth (2009) added that smart devices increase the effectiveness of learning because of its many characteristics, including dynamics, by giving the learner more freedom of learning that occurs in the classroom and outside the walls of educational institutions, in addition to participatory, adapting, content development, and mobility in the learning process anywhere and at any time.

*2.4 The Reality of Using Smart Device Applications for Learning*

Yao, Kuo, and Tzu (2016) noted that smart devices are an educational tool with great potential in both classroom and outdoor learning.

Insook and Won (2016) confirmed that there were potential links between the use of the mobile learning management system and the gender, age and psychological characteristics of students, and that the use of the mobile learning management system had a positive impact on the academic achievement of students in higher education.

Sharbini (2012) noted that many international universities, research centers and online platforms have dozens of free online courses (Moocs), which rely on the use of mobile learning to provide them for learning.

Mahdi (2014) believes that mobile learning is a model for e-learning, using smart devices and advanced technologies, both manual and portable, through the applications and services of the learning process, which achieves flexibility, sharing and interaction, and sustainable development in the education and training processes at anytime, anywhere, including: access to the Internet, browsing various

websites, sending and receiving e-mail, exchanging text messages, and accessing educational platforms.

Abdul (2015) confirmed that the applications of smart mobile devices and tablets used in e-learning system Blackboard.

Al-Khathami (2016) stated that all members of the study sample use social media applications in smartphones at a rate of more than 20 times a day, and that WhatsApp is the most widely used social networking application in smartphones followed by Twitter, YouTube, and Google Plus.

Marta and Antoni (2016) concludes that facilitating access to information and increasing participation in learning are the main influences of mobile technology in the classroom, and that the choice of applications is linked to teachers' perceptions of how mobile technology actually improves some aspects of learning practice.

Abdul Ati (2015) pointed out that the majority of students use the Blackboard system via smart devices, and the desire of students to employ applications of smart mobile devices and tablets in e-learning because of their positive advantages.

Al-Ajrami (2019) found the reality of using smart device applications in the university positively, and that there is interest among students in employing smart device applications in learning, in using the Internet in general, communicating with the faculty to inquire about some educational matters, and to see all the new in specialization, university announcements, and yet there are challenges and obstacles facing the use of smart devices in learning at the university.

Zidan (2018) believes that the effectiveness of smartphone applications to learn the practical aspects of Dewey decimal classification, and that 72% of university students have a positive trend towards learning mobile classification, and that learning to classify by mobile phone helps to increase the rate of study achievement by 60%.

Several studies have indicated (Al-Ajrami, 2019; Alzaidiyeen, Abdullah, AlShabat, & Seedee, 2011; Suki, 2011; Ashour, ALzghool, Iyadat, & Abu-ALruz, 2012) that students have positive attitudes towards the use of personal digital assistance and a great desire to use smart

device applications, for their usefulness, features and characteristics in education, Such as: exchanging messages related to education with colleagues, searching library indexes and databases, holding discussions with colleagues about lectures they missed, searching for educational materials on the Internet, holding discussions with colleagues about lectures they attended, storing data, inquiring about test schedules and homework, obtaining test results, viewing the course schedule, recording lectures, enrolling in courses, and communicating with teachers.

Al-Anzi (2012) and Al-Omari (2014) noted that there are human obstacles, the most important of which is that the university's laws and regulations prohibit the use of mobile devices during lectures, and physical disabilities, the most important of which is the high internet subscription fees, and that the obstacles to its use, the most important of which is that the regulations and regulations applied in the university prevent the use of mobile phones, the lack of conviction of many faculty members of the university about the feasibility of using mobile phones in the educational process, and the conviction of many faculty members that the use of internet subscription fees is useless in the process of teaching. Physical barriers are fast running out of battery, and the size of the data display is small.

***2.5 Previous Studies***

Study of Che and Chen (2009) Aimed to identify the effectiveness of English language learning using mobile learning applications at Taiwan's National University of Trenchancy applying an English language learning program.

Study of Alzaidiyeen, et al., The researchers distributed a questionnaire to a sample of 250 students to collect data on personal digital assistance and trends.

The Sookie Study (2011) aimed to find out how receptive learners are to the idea of using mobile technology in education. The researcher designed a questionnaire of five open questions, and distributed it to a sample of (20) students at the Professional University of Selangor in Malaysia, and the results of the study showed that learners were not interested in using mobile learning technology, and that they were more familiar with learning using lectures. Pictured or learning face-to-face

from the use of mobile learning technology even though they use mobile phones, the study concluded that learners do not see any improvement in the science of education as a result of the use of mobile learning, and the results also showed that learners have shown a negative attitude towards this technology.

Hassan's study (2011) aimed to investigate the effectiveness of the cartoon course to develop the skills of using Moodle system among graduate students in the Department of Education Technology at the Faculty of Education at The University of Benha. The sample of the study (20) students for the decision of the development of educational technology, the researcher used the curriculum semi-experimental and worked a test of achievement of his preparation and used a measure of motivation and achievement was prepared by Farouk Abdel Fattah Musa and the subject of experimental treatment an electronic course designed and developed through the Model system of learning management.

The Ashour et al. (2012) study aimed to determine the level of mobile applications in the university classrooms in Jordan. The study tool was distributed to a sample of (313) students from university students at the Hashemite University in Jordan. About them, and the search for educational materials on the Internet, have obtained high ratings from the study participants, and that discussions with colleagues about the lectures they attended, the storage of data, the enquiry about the dates of tests and homework, the obtaining of test results, the presentation of the study schedule, the presentation of the course scoring, the registration of lectures, the communication with teachers, have obtained low grades, and there is no statistically significant difference in the perceptions of students on the variable gender.

Al-Anzi's (2012) Study aimed to reveal the degree of mobile phone use in the teaching and learning process of university students, and the constraints of its use. The sample of the study consisted of (302) students from bachelor's students in different faculties at the university, and were selected in a random manner. The study concluded that the use of mobile applications among students was moderate, and that the obstacles to its use were high, the most important of which is that the regulations and

regulations applied in the university prohibit the use of mobile phones, the lack of conviction of many faculty members of the university of the feasibility of using mobile phones in the educational process, and the conviction of many faculty members that mobile phones are a communication and entertainment tool that is useless in the process of education. Physical barriers are fast running out of battery, and the size of the data display is small. The results of the study also showed that there are statistically significant differences on both the gender variable and the benefit of male students, the college variable and the benefit of the Faculty of Computer Engineering, and the absence of statistically significant differences on the variable of the school year.

The Study of Age (2014) aimed to reveal the degree of use of mobile learning applications in graduate students at Yarmouk University and the constraints of their use, and also sought to know the impact of each of the variables (specialization, age, academic level, gender and rate of use) on this. The researcher used the descriptive survey method to conduct the study, and the sample of the study consisted of (342) students from the Faculty of Education at Yarmouk University distributed in the three departments of the college, and they were randomly selected, the researcher designed a questionnaire to collect information consisted of (43) paragraphs distributed in three sections, in the first semester of 2013-2014, and the results of the study showed that the degree of use came with an average mathematical average of (3.23) And that the rate of use came with an average of several degrees and a mathematical average of (3.15), and that there are human obstacles, the most important of which is that the laws and regulations of the university prohibit the use of mobile devices during lectures, and physical constraints, the most important of which is the high subscription fees in the Internet, and that there are statistically significant differences at the level$\alpha$ (= 0.05)in the rate of use and in favor of the daily use of mobile learning, and the absence of statistically significant differences at the level$\alpha$ (= 0.05)in the rest of the study variables.

Abdul Ati's (2015) study aimed to assess the experience of Taif University in the use of smart and tablet mobile applications in e-learning using the Blackboard system from the point of view of students,

in order to identify the reality of the pros and cons of taif university's experience in this field; A questionnaire to collect data from students of Taif University regarding their view on the applications of smart and tablet mobile devices through the Blackboard learning management system in university education, and the questionnaire is of six main themes revolving around the reality, pros and cons and constraints of the experience of Taif University in this field.

Ghannam and Al-Abikan's (2016) study aimed to identify the reality of use in the Faculty of Education at King Saud University: Applications and Challenges. The study used the descriptive method. The sample consisted of 91 male and female students, and the sample included 47 faculty members. The researcher prepared a questionnaire to measure the reality of the use of mobile education by graduate students and faculty. The results showed that there is a gap between faculty and graduate students in the use of mobile education applications, and the student usage rate was 97%, while the utilization rate by faculty was 69%, which consisted of students using mobile education in tasks and group work associated with courses such as the use of the Dropbox application, the use of the Blackboard management system, the use of e-mail, SMS, and WhatsApp applications.

Al-Khathami's (2016) study aimed to know the circulation of information through smartphone applications by female students (bachelor) in the Faculty of Computer Science and Information at Imam Mohammed Bin Saud Islamic University, and to learn about the use of social media applications in smartphones in the circulation of information by female students. The study sample consisted of (124) students. Use the survey method. The resolution was used as a tool for collecting data on the study. The results showed that all sample study uses social media applications in smartphone 100%, and the results showed that 55.6% of the sample study uses social media applications in the smartphone more than 20 times a day, and that all sample study 100% use social media applications in the smartphone to get information.

Al-Ajrami's (2019) study aimed to reveal the reality of al-Aqsa University's use of smart device applications in learning, and sought to

identify the impact of each of the variables (college, academic level, gender, usage rate) on this. The researcher used the survey descriptive method. The sample of the study consisted of (385) students from al-Aqsa University, divided into five colleges, and were selected in a random manner. The researcher designed The Resolution as a study tool to collect information and has been confirmed to be true and stable. The results showed that all the study tool's dialogue came at an average degree, and the study showed that the focus of the importance of using smart device applications in learning came to an average degree, and the obstacles to using smart device applications in learning at an average degree, and showed no statistically significant differences in all the variables of the study.

**The current study benefited from previous studies in methodology, how to select the sample, the approved tools, and the necessary statistical treatments. However, it was distinguished from previous studies in that it is one of the first scientific studies that dealt with the fact that university students in the College of Basic Education in Kuwait used the applications of smart devices in learning, which was not conducted by any previous study in the State of Kuwait, within the limits of the researcher's knowledge and knowledge.**

***2.6 The Problem of Study and Its Questions***

The problem of study lies through the wide spread of the use of smart devices of different types and applications in all age groups and studies, including the university stage, and is considered the use of applications of smart devices in the field of teaching and learning from modern subjects, and due to the novelty of these devices, which are characterized by great possibilities and multiple and advanced through their various applications, research tools and communication to environments and websites Despite the importance of using mobile devices and mobile devices for science, their use among students is still limited, according to the researcher's science, the current study may be the first of its kind in Kuwait, and seeks to reveal the reality of the use of university students in the College of Basic Education in Kuwait for smart device applications in learning. The refore, the problem of study is determined in the following main question "What is the reality of the use

of the applications of smart devices by university students in the **College of Basic Education in Kuwait.**

**The main question is:**

1- How much do university students at the College of Basic Education in Kuwait use smart device applications for learning?
2- What is the importance of using smart device applications from their point of view by university students at the College of Basic Education in Kuwait?
3- Are there statistically significant differences at the level of significance ($\alpha \leq 0.05$) in the fact that university students at the College of Basic Education in Kuwait use smart device applications in learning due to variables (gender, rate of use)?

***2.7 Study Objectives***

1- To reveal the degree of use of the university students in the College of Basic Education in Kuwait for applications of smart devices in learning.
2- Learn about the importance of using smart device applications from their point of view by university students at the College of Basic Education in Kuwait.
3- To identify statistical differences in the fact that university students at the College of Basic Education in Kuwait use smart device applications in learning due to variables (gender, rate of use).

***2.8 The Importance of Study***

The importance of the study lies in the following:

1- To reveal the importance of university students using different smart device applications in learning, which have become accessible to all segments of society, including students.
2- To draw the attention of those interested in the educational process and decision makers to try to employ smart devices and their applications in the learning process.
3- The results of the study may benefit the guidance of specialists, experts and decision makers in higher education on university programs to the need to adopt mobile learning systems within their programs, which may contribute to the development of different

teaching strategies in universities.

4- The results of the current study may benefit researchers to conduct studies with new variables.

***2.9 Study Terms***

- **Smart** devices: "Mobile phones and tablets that exceed their role of receiving and sending calls and SMS as in old mobile phones, which are devices operating with operating systems Android, ISO system, and other systems, where you can browse the Internet, follow the internet, follow the internet, run multimedia, download many applications through the store in each system, and operate those devices with touch property" (Al-Ajrami, 2019, p. 46).
- **Smart device** applications: "Software programmed to do a number of specific tasks, dedicated to smartphones and tablets, which have countless applications either Android devices or iPhones, and are divided into many categories such as: music applications, games, socializing, exercise and purchase of electronic products, along with free education applications, and learning platforms" (Abdessalam, 2019, p. 1).

***2.10 Study Limits***

1- The study was limited to uncovering the reality of using smart device applications in learning.

2- The study was limited to students of the College of Basic Education in the General Authority for Applied Education and Training in Kuwait.

3- The study was limited to the second semester 2020/2021.

## 3. Method and Procedures

***3.1 Curriculum***

The researcher used the descriptive survey method to suit this type of research, and is based on uncovering the reality of the use of the university students in the College of Basic Education in Kuwait for applications of smart devices in order to reach the required results.

***3.2 Study Community***

The entire study community (17,455) students from the College of Basic Education in the General Authority for Applied Education and

Training in the second semester of the 2020/2021 academic year, and the number of male students (5,324) students and females (12,131) students.

### *3.3 Study Sample*

The study sample consisted of (385) students selected in the random way, and a table (1) showing the distribution of study sample members according to gender variables and the rate of use.

Table 1. Distribution of the study sample members of the university students according to the variables

| **Variables** | **Levels** | **Duplicate** | **Percentage** |
|---|---|---|---|
| Gender | Male | 68 | 17.7% |
| | Female | 317 | 82.3% |
| | Total | 385 | 100% |
| The government's ability to support the | Daily | 346 | 89.9% |
| | Weekly | 35 | 9.1% |
| | Per month | 4 | 1% |
| | Total | 385 | 100% |

### *3.4 Study Tool*

In order to achieve the desired objectives of the study, the researcher used electronic questionnaire as a tool for collecting information, because it is the most suitable for the nature of the subject, and more suited to the nature of the study society and the characteristics of the sample, after reviewing a number of previous studies related to the subject of the study, and taking advantage of the study tools used in it, These studies include the Study (Al-Ajrami, 2019; Ajrami & Al-Mutairi, 2017; Al-Khathami, 2016; Omari, 2014; Omari, 2014; Ashour, e tal., 2012; Al-Anzi, 2012; Suki, 2011), after reviewing previous research and studies, the researcher prepared a cartoon questionnaire to collect data from the study sample to identify the reality of their use of smart device applications in learning, in order to achieve the objectives of the study.

The study tool consisted of part 1: personal data about the study sample students, and includes a set of questions: gender, and the rate of use of smart devices. Part 2: 35 included a paragraph divided into three axes; The second axis: the importance of using smart device applications.

To determine the reality of the use of the university students in the College of Basic Education for smart device applications in learning, three choices were made for each paragraph according to the Triple Likert scale: large, medium, low, and grades (1). 2. 3) In order.

**Believe the Tool**

The authenticity of the tool was confirmed by presenting it to a number of arbitrators specializing in education technology and curriculum in its initial form, ensuring the appropriateness and affiliation of the paragraphs, the integrity of their formulation, and the introduction of formal adjustments, and the finalization of the questionnaire.

**The Stability of the Tool**

The stability of the study tool (questionnaire) was calculated in two **ways: the** researcher calculated the stability factor in the half-fragmentation method through the SPSS program, where the analysis revealed that the Association Coefficient of Spearman Brown was (0.885), a high coefficient of scale stability. The Alpha **Cronbach coefficient** was **calculated:** the researcher used the results of the application of the questionnaire to the sample of (30) students from the study community who were not included in the study sample, to calculate the total stability of the questionnaire using the Alpha Cronbach coefficient and the stability factor of 0.91, as in table (2), a high stability factor considered by the researcher sufficient for the purposes of this study.

Table 2. Stability calculation using alpha Cronbach coefficient and spearman brown half-retail

| **Axis** | **Number of paragraphs** | **Alpha Cronbach** Laboratories | **Half-time retail factor Spearman Brown.** |
|---|---|---|---|
| Uses | 18 | 0.850 | 0.710 |
| Importance | 17 | 0.642 | 0.815 |
| Total stability | 35 paragraphs | 0.91 | 0.885 |

***3.5 Study Procedures***

To achieve the objectives of the study, the following steps and procedures were followed:

– Identify a random sample of the entire community for students of the

College of Basic Education.

- Prepare the study tool and present it to the arbitrators to take advantage of their observations and take them.
- The researcher distributed the questionnaire to a survey sample of students of the General Authority for Applied Education and Training outside the sample of the study, and after extracting honesty and stability the questionnaire was distributed to the sample.
- The researcher unloaded the surveys and performed statistical analysis using appropriate statistical treatments to present and discuss the results and make recommendations.

### *3.6 Statistical Treatment*

In the light of the study's questions, the researcher used the appropriate statistical treatments through analysis on the SPSS program, the researcher has used mathematical averages and standard deviations, the coefficient of internal consistency Cronbach alpha and the stability of replays and repetitions, in addition to analyzing the four-way contrast to show the variables of the study, and the use of the Chevy method of dimensional comparisons of the effect of variables.

## 4. The Results of the Study and Its Discussion

**Question 1: What is** the degree to which **university students at the College of Basic Education in Kuwait use smart device applications in learning?"**

To answer this question, the averages, percentages and grades of student estimates were calculated, and the paragraphs were arranged according to the calculation averages descending within each axis, as follows:

Table 3. Averages, percentage supremo and degree supremo for the use of university students in the College of Basic Education in Kuwait for smart device applications in learning within the axis of the uses of smart device applications in learning

| Number | Paragraphs | Average Arithmetic | Deviation Normative | Percentage The government's support | Class |
|---|---|---|---|---|---|
| 16 | Use the University App (Student Services) | 2.345 | 0.748 | 78.2% | Big. |

| Number | Paragraphs | Average Arithmetic | Deviation Normative | Percentage The government's support | Class |
|---|---|---|---|---|---|
| | to learn about lecture schedules and venues, test schedules, and course registration services. | | | | |
| 4 | I exchange messages with my colleagues through WhatsApp/Telegram/Messenger software; | 2.285 | 0.775 | 76.2% | Medium |
| 10 | I browse announcements and urgent administrative decisions by the university administration through the university's social media page (Facebook, Twitter, Instagram, Google.... Etc.). | 2.249 | 0.751 | 75% | Medium |
| 3 | I download many sources of educational scientific information, books, summaries and educational content on my smart device from teams. | 2.244 | 0.741 | 74.8% | Medium |
| 1 | Send and receive educational materials with my colleagues in a variety of forms: text, video, audio, video. | 2.215 | 0.786 | 73.9% | Medium |
| 13 | Use Moodle's app on my device to view the online content of my courses and upgrade assignments. | 2.166 | 0.749 | 72.2% | Medium |
| 5 | Use the YouTube app to view specialized videos and subscribe to educational channels. | 2.153 | 0.771 | 71.8% | Medium |
| 8 | Use the Google Translate app to translate foreign texts well as written text, sounds, and comments. | 2.153 | 0.751 | 71.8% | Medium |
| 7 | Use SMS services to get information faster than email, such as lecture schedules or test schedules. | 2.111 | 0.784 | 70.4% | Medium |
| 9 | Get to know and connect with new people around the world through some smart device apps such as WhatsApp/ Telegram/ Messenger/Viber. | 2.046 | 0.792 | 68.2% | Medium |
| 11 | I use the Calendar app on my device to remind you of test schedules and deliver assignments. | 2.007 | 0.776 | 66.9% | Medium |
| 6 | I take different notes by hand or by voice on your device through apps (OneNote, Google | 1.989 | 0.791 | 66.3% | Medium |

| Number | Paragraphs | Average Arithmetic | Deviation Normative | Percentage The government's support | Class |
|---|---|---|---|---|---|
| | Keep). | | | | |
| 17 | Use games and iq development apps to help me acquire new information and develop my mental skills. | 1.989 | 0.739 | 66.1% | Medium |
| 15 | Use Acrobat and Microsoft office apps to read and browse e-books related to my courses. | 1.981 | 0.775 | 65.1% | Medium |
| 18 | Use Video Editor apps to produce and post educational videos on communication apps. | 1.953 | 0.796 | 64.5% | Medium |
| 12 | Use the google drive app on my smart device to upload and share files with my colleagues. | 1.935 | 0.786 | 64.5% | Medium |
| 14 | Use the Mail app to receive and send e-mail like Hotmail, Yahoo, Gmail | 1.929 | 0.762 | 64.3% | Medium |
| 2 | Iam in contact with the lecturers of the various courses to inquire about matters related to the courses registered with me. | 1.919 | 0.754 | 64% | Medium |
| **College degree** | | 2.093 | 0.445 | 69.7% | Medium |

Table 3 shows that the study sample responses to the focus on the use of smart device applications in learning generally came with a (medium) score, with a mathematical average of (2.345-1.119), a standard deviation between (0.748-0.754) and the overall axis score (2.0). 93) By percentage (69.7%), which is a (medium) degree of use, (17) paragraphs in this axis came with a (medium) degree, with their arithmetic ranging from (1.919 to 2.285%) and by a percentage (64%-76.2%).

The researcher attributes the result to the interest of students in the use of smart device applications in learning and in the use of the Internet in general and in the knowledge of all that is new in the field of specialization, and in the announcements of the university and in communicating with the faculty to inquire about some educational matters, but they do not reach the extent hoped, and attributed The researcher pointed out that the use of smart device applications in learning is still in its infancy, and that there are still many challenges

facing this use, including human concerning the user, or the service provider, including material and related to the technology itself and devices. The current result is in agreement with a study (Al-Ajrami, 2019) that the degree of use of smart devices by university students in learning was medium, and the current result was in agreement with the study (Al-Omari, 2014; Al-Anzi, 2012; Ashour et al., 2012) which concluded that the use of mobile applications in learning among graduate students at the university was moderate.

Paragraph (16) on (use the university application (student services) to identify lecture schedules and venues, test schedules, and course registration services was ranked first and received an estimate (significantly), with an average account (2.345) and a percentage (78.2%). The researcher attributes the result to the university's reliance on the university's application (General Authority for Applied Education and Training) for smart devices, which includes reminders of lecture schedules, schedules, half and final examination schedules, academic agenda, library services and the latest university news. Where the result was high.

Paragraph (2) on (I communicate with the lecturers of the various courses to inquire about matters related to the courses registered with me) received the lowest average in this area and reached 1.919 and a percentage (64%). The researcher attributes this to the fact that many faculty members of the university who are over the age of 50 and those who may not welcome the idea of electronic communication with students and their adherence to traditional educational methods due to the customs and traditions of Kuwaiti society, and the lack of awareness of some lecturers of courses the role that smart device applications can play in the service of learning education, and their belief that the call to this is a kind of obsession with technology, as well as may be due to the lack of adequate training for some faculty members on this type of education, and that many faculty members at the university are still in their initial stages of possessing mobile learning skills, and the university should make great efforts to enroll many faculty members in intensive courses in e-learning, and in how the faculty uses blogs and Google educational applications, and such courses are held in the deanship of quality

assurance at the university. The current result was agreed with the study (Al-Ajrami, 2019) where the result was moderate, and agreed with the Study of Age (2014) which concluded that the faculty members were not activated at the university for mobile learning.

The following paragraphs in the use of e-learning management systems applications, paragraph (3) states, "I download many sources of educational scientific information, books, summaries and educational content on my smart device from teams." The researcher attributes the finding that the application Teams is the most commonly used by students of the College of Basic Education at the university and among faculty members for flexibility and ease of use. Paragraph (13) that states that "Moodle's application was used on my device to access the electronic content of my courses and raise assignments" was medium.

The current study was agreed with a study (Hassan, 2011) and concluded the effectiveness of the electronic course and its ability to develop motivation, achievement and cognitive achievement. The current finding sought to agree with a study (Abdul, 2015; Ghannam & Al-Abikan, 2016) that an acceptable percentage of students use the e-learning management system through smart devices and tablets in education, and the study (Abdul, 2015; Ghannam & Al-Abikan, 2016) differed with the result of the current study with the type of application used by the study blackboard system.

Paragraph 14 related to (use the Mail app to receive and send e-mail such as Hotmail, Yahoo, Gmail) in the penultimate ranking with my account average (1,929) and a percentage (64.3%) This may be due to the fact that the majority of students are now in contact with their colleagues as well as with lecturers through live chat programs (Skype, Facebook messenger, WhatsApp) and only a small group of students use e-mail since live chat programs also give them the ability to attach files.

**Question**2: "What **is the importance of university students using smart device applications to learn from their point of view?**". To answer this question, the arithmetic averages, percentages and grades of student estimates were calculated, and the paragraphs were arranged by

the calculation averages descending within each axis, and were as scheduled (4) the following:

Table 4. Averages, percentage supremo and degree of the fact that university students use smart device applications learning within the importance of using smart device applications

| Number | Paragraphs | Average Arithmetic | Deviation Normative | Percentage The government's support | Class |
|---|---|---|---|---|---|
| 10 | Smart devices store scientific material files and e-books in a smaller and easier-to-carry way than traditional books. | 2.389 | 0.746 | 79.7% | Big. |
| 4 | Smart device applications provide the student with a variety of instant feedback (text, voice, video, complex links). | 2.345 | 0.734 | 78.2% | Big. |
| 9 | Smart device applications contribute to the development of research skills among students. | 2.293 | 0.736 | 76.5% | Medium |
| 13 | Smart devices provide the learner with the opportunity to quickly connect to the Internet without being in a specific location. | 2.296 | 0.751 | 76.5% | Medium |
| 17 | Smart device applications help move the events of the outside world to the lecture hall (learning place). | 2.288 | 0.755 | 76.3% | Medium |
| 12 | Smart device applications change the role of a student from a knowledge receiver to a knowledge seeker. | 2.283 | 0.736 | 76.1% | Medium |
| 2 | Smart device applications add a kind of vitality and appeal to the presentation of educational material. | 2.267 | 0.724 | 75.6% | Medium |
| 6 | Easy browsing of | 2.226 | 0.738 | 74.2% | Medium |

| Number | Paragraphs | Average Arithmetic | Deviation Normative | Percentage The government's support | Class |
|---|---|---|---|---|---|
| | educational content for apps because of the small size of smart devices. | | | | |
| 5 | Smart device applications encourage students to collaborate by activating participatory learning and active learning. | 2.218 | 0.725 | 73.9% | Medium |
| 11 | The use of smart device applications increases learning from communication between students and teachers. | 2.205 | 0.734 | 73.5% | Medium |
| 7 | Educational applications for smart devices contribute to the development of students' thinking skills. | 2.197 | 0.731 | 73.2% | Medium |
| 1 | Smart device applications motivate students to increase motivation towards the teaching and learning process. | 2.174 | 0.781 | 72.5% | Medium |
| 15 | I prefer to learn about smart device applications than computers because it is available all the time and everywhere. | 2.171 | 0.744 | 72.4% | Medium |
| 3 | Smart device applications reduce the psychological barrier to the learning process. | 2.135 | 0.709 | 71.2% | Medium |
| 16 | Smart device apps allow students to correct their mistakes, if any. | 2.111 | 0.715 | 70.4% | Medium |
| 14 | The cost of smart devices is lower and more popular than | 2.064 | 0.742 | 68.8% | Medium |

| Number | Paragraphs | Average Arithmetic | Deviation Normative | Percentage The government's support | Class |
|---|---|---|---|---|---|
| | ever. | | | | |
| 8 | Smart device apps help take into account individual differences between students. | 2.002 | 0.716 | 66.8% | Medium |
| **Overall average of the axis** | | 2.215 | 0.464 | Medium | 73.9% |

Table 4 shows that the responses of the study sample on the axis of importance of using smart device applications in learning generally came with a degree (medium), with the overall average of the axis (2.215) and percentage (73.9%), and (15) paragraphs in this axis came with a degree (medium) Its computational range ranged from (1.002 to 2.2.293) to a percentage (66.8%-76.5%), and paragraph 10 related to, (smart devices store scientific material files and e-books) Smaller and easier to carry than traditional books) ranked first and received an estimate (significantly), with a mathematical average (2.389) and a percentage (79.7%), and the researcher attributes this to the ease of downloading and sharing files and e-books among learners by smart devices where This can be done through Bluetooth or using different applications, which is not available in traditional learning, storage capabilities via wireless smart device applications are equivalent to storage capabilities in traditional technologies, and most smart devices carrying notes and e-books are lighter, smaller and easier to carry. from bags or laptops. Paragraph 4 on (providing student smart device applications with various forms of instant feedback) came in second place and received an estimate (significantly), with a mathematical average (2.345) and a percentage (78.2%), per cent, per cent because monitoring the course of educational and training activities and recording student responses through smart device applications helps to use what has been monitored and recorded in learning as a feedback tool for later activity. The result coincided with the study (Al-Ajrami, 2019), in which the result was moderate, and the current result was agreed with the Ajami study (2017) which reached the most important results that the applications of smart devices provide the

student with a good response where it is matched by the promotion and encouragement of various forms of feedback, and that the enhanced motivation of the student was the most important features of the use of smart devices. That learners were not interested in using mobile smart devices to learn, while they were more familiar with traditional learning despite their use of smart devices.

Paragraph 8, which states (smart device applications help to take into account individual differences between students), received the lowest average in this axis (2.002). The researcher attributes the result to the nature of the study stage to which students belong, which is the university level, perhaps such an issue, students may feel at early stages such as primary and secondary school than the university level; in the early stages of study, the issue of individual differences is taken into account more, while at the university level other issues such as the requirements of comprehensive social development, teaching students and developing their mental and scientific abilities to make decisions and solve problems, adapt to new developments, and select from multiple alternatives. The current result was agreed with a study (Al-Ajrami, 2019).

**Question** 3: Which states: **"Are there statistically significant differences at** the level of indication **($\alpha \leq 0.05$)** in the fact that university students use smart device **applications in learning due to variables (gender, rate of use)?"**

Table 5. Average specimen responses by variable (utilization rate)

| Axis | Use | Average arithmetic | Percentage |
|---|---|---|---|
| Uses of smart device applications in learning | Daily | 2.09 | 69.7% |
| | Weekly | 2.14 | 71.3% |
| | Per month | 1.92 | 64.0% |
| The importance of using smart device applications | Daily | 2.22 | 74.0% |
| | Weekly | 2.18 | 72.4% |
| | Per month | 2.37 | 79.0% |
| College degree | Daily | 2.12 | 70.7% |
| | Weekly | 2.14 | 71.3% |
| | Per month | 2.12 | 70.7% |

Table 6. Results of Mon variability analysis of the reality of using smart device applications in learning in light of variable utilization rate

| Axis | Source of variance | Total squares | Degrees of freedom | Average squares | Value P | Level of significance |
|---|---|---|---|---|---|---|
| Uses of smart device applications in learning | Between groups | 0.192 | 2 | 0.096 | 0.483 | 0.618 |
| | Within groups | 76.049 | 382 | 0.199 | | |
| | Total | 76.241 | 384 | - | | |
| The importance of using smart device applications | Between groups | 0.143 | 2 | 0.072 | 1.331 | 0.719 |
| | Within groups | 82.822 | 382 | 0.217 | | |
| | Total | 82.966 | 384 | - | | |
| College degree | Between groups | 0.261 | 2 | 0.008 | 0.069 | 0.934 |
| | Within groups | 44.959 | 382 | 0.118 | | |
| | Total | 45.220 | 384 | - | | |

Table 6 shows that the results of the single variation analysis indicate that there are no statistically significant differences at the level of significance ($\alpha \leq 0.05$) between the average estimates of the study sample members attributable to the variable of the utilization rate in all axes of the study tool. The researcher attributes the result to the fact that smart devices have become a life path in society in all categories, and the flexibility of its use as a mobile, which led to the length of daily use periods for all age stages, where smart devices became the source of information, news, social networking, entertainment, because of its open communication to the world, tremendous information and constantly updated, and the possibility of penetration to educational platforms such as: Electronic Learning Systems Moodle And Teams to download courses and content for them, e-books and others, and research, so students use these devices everywhere and in any free time, even during some lectures, because of the services provided by these devices that the student needs and which helps him in all walks of life, where it has the capabilities that enable students to practice their different hobbies, build virtual relationships among them, satisfy their curiosity, and exchange experiences Average sample responses by variable (gender), cultures,

knowledge, customs, traditions and values, which reduces the appearance of differences in student responses due to the rate of use. The result was in line with a study (Al-Ajrami, 2019; Peaty, 2016) which showed that all members of the study sample used smartphone applications at a usage rate of up to 9 hours per day. The current result differed from the Age Study (2014), which found statistically significant differences between the average scoring of graduate students in the use of smart devices in learning due to the variable utilization rate.

To detect the effect of a gender variable, table (7) refers to the averages of the study sample responses by variable (gender), and the indications were as table (8):

Table 7. The averages of the study sample responses by variable (gender)

| Axis | Type | Average arithmetic | Percentage |
|---|---|---|---|
| Uses of smart device applications in learning | Male | 2.07 | 69.03% |
| | Female | 2.09 | 70% |
| The importance of using smart device applications | Male | 2.21 | 74% |
| | Female | 2.21 | 73.8% |
| College degree | Male | 2.09 | 69.3% |
| | Female | 2.12 | 70.8% |

Table 8. Test results (t) of the reality of using smart device applications in learning in the light of the changing gender

| Axis | Type | Number of individuals | Degrees of freedom | Average arithmetic | Percent-age | Standard deviation | Value (t) | Average differences | Level of significance |
|---|---|---|---|---|---|---|---|---|---|
| Uses of smart device applications in learning | Male | 98 | 383 | 2.071 | 69.03% | 0.414 | -0.451 | -0.026 | 0.652 |
| | Female | 371 | | 2.098 | 70% | 0.452 | | | |
| The importance of using smart device applications | Male | 68 | 383 | 2.219 | 74% | 0.469 | 0.075 | 0.004 | 0.941 |
| | Female | 371 | | 2.215 | 73.8% | 0.464 | | | |
| Obstacles to using smart device applications in learning | Male | 98 | 383 | 1.994 | 66.46% | 0.349 | -1.297 | -0.068 | 0.196 |
| | Female | 371 | | 2.062 | 68.7% | 0.406 | | | |
| Overall average | Male | 68 | 383 | 2.095 | 69.3% | 0.335 | -0.661 | -0.030 | 0.509 |
| | Female | 371 | | 2.125 | 70.8% | 0.345 | | | |

Table 8) shows that the results of the Test (T) indicate that there are no statistically significant differences at the level of significance ($\alpha \leq 0.05$) between the average estimates of the study sample members attributable to the gender variable in all axes of the study tool. The researcher attributes this to the similarity of the interests of both genders in seeking to develop their abilities and skills in order to achieve their goals of obtaining the job and securing the future, which invites them to use smart device applications to increase knowledge and qualification in various fields, so that they open themselves to work in the light of economic situations, as well as the attractive environment that smart devices for both genders represent as they provide them with open communication to the world and tremendous information constantly updated, as well as their abilities to satisfy their curiosity and practice their various hobbies, where they provide content that suits their educational needs. The current study is in agreement with the study (Al-Ajrami, 2019; Omari, 2014; Ashour et al., 2012) their findings found no statistically significant differences between the average specimen scoring in the use of smart devices in learning attributable to the gender variable in all the axes and phrases of the study tool. The results of the current study differed from the study (Alwazi, 2014; Alzaidiyeen et al,, 2011), which indicated a statistically significant difference in gender variables and in the male interest in the use of smart devices in learning.

**5. Recommendations**

In light of the results of the research, the researcher recommends:

1. Work to develop the teaching strategies used in university education and support them with technological innovations through the use of smart device applications, which contributes to the development of positive trends among students towards mobile learning.
2. Develop teacher preparation programs in the faculties of education in general and be in accordance with technological innovations, e-learning and mobile learning in the field of teacher preparation, through the development of courses of teaching strategies and practical education programs, with adequate opportunity for training, and the design of various activities in the field of teaching skills.
3. The University implements a series of training and development

courses for faculty members at the university in order to keep them informed of the latest e-learning applications, including smart device applications as an assistant in the education process and how to use them.

4. To increase the level of interaction between teacher, student, student and colleagues by activating participatory activities and panel discussions through the optimal recruitment of smart device applications in learning.

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