

Obstacles to applying e-learning at Palestine Technical University - Khadoree in the period of the Corona pandemic from the view point of students of the community service course

Turkish Online Journal of Qualitative Inquiry (TOJQI)  
Volume 12, Issue 07, July 2021: 13990-14014

## **Obstacles to applying e-learning at Palestine Technical University - Khadoree in the period of the Corona pandemic from the view point of students of the community service course**

**Dr. Hossam Hosni Al-Qassem**

Associate Professor of Educational Administration - Palestine Technical University Khadoree - Main Branch - College of Arts and Educational Sciences

**a. Maher Qamhawi**

Director of the Department of Studies and Community Development

[dr.husamalqasm@gmail.com](mailto:dr.husamalqasm@gmail.com)

### **Abstract**

This study aimed to identify the obstacles to the application of e-learning at Palestine Technical University - Khadoree / Headquarters during the pandemic period from the view point of the students of the community service course. Axes, and a random sample of (44) male and female students was selected, and after data collection and statistical processing using the Statistical Package for Social Sciences (SPSS) program. The results showed that (75%) of the respondents had obstacles in applying e-learning correctly, as indicated by The results indicate that there are statistically significant differences about the obstacles to the application of e-learning at the university in the period of the pandemic from the view point of students registered for the community service course depending on the gender variable on the field of academic obstacles, and the results indicate that there are no statistically significant differences on the obstacles to the application of e-learning in The university in the period of the pandemic from the view point of the students of the community service course according to the variable of the college on the field of technical and administrative obstacles, while there were statistically significant differences on the field of other obstacles. Academic, and the results indicate that there are no statistically significant differences on the obstacles of e-learning at the university in the period of the pandemic from the view point of students registered for the community service course according to the variable of specialization on the field of technical and administrative obstacles as well as the overall field, while we find that there are statistically significant differences on the field of Academic obstacles, and this means that there is a difference in the views of the respondents, and the results indicate that there is no difference in the views of the respondents according to the place of residence on all fields and the total field about the obstacles of e-learning at the university according to the variable of the place of residence, and the results indicate that there is no difference in The views of the respondents according to the different academic level of research on all fields and the total field about the obstacles to e-learning at the university in the period of the pandemic from the view point of students enrolled in the community service course according to the change in the level of study. The two researchers reached a set of recommendations, the most important of which were: working on developing the infrastructure of Internet networks inside the university

campus and preparing new halls, equipped with computers that fit with the annual increase in the number of students.

**Keywords:** Obstacles, e-learning, Corona pandemic.

**Introduction:** E-learning is considered one of the most successful fruits of the scientific and technological revolution witnessed by the education process in the current century. It adds a kind of vitality to the educational process in a way that makes the learner in a state of constant attention and focus, thus achieving the efficiency of learning through organizing the educational process. It also helps to The use of self-learning methods qualifies the learner to progress in the learning process according to his abilities and the nature of his capabilities, achieving professional learning, which aims to increase the learner's efficiency to the best possible degree by providing the environment, methods, and the appropriate time to reach this mastery. E-learning is defined as employing modern technology that is based mainly on the skills necessary to deal with the international information network to interact between students and professors. electronically without committing to the limits of time or place (Amer, 2007).

Abdel-Hay (2006) believes that e-learning is a method of education using contemporary communication mechanisms from a computer, and its various means of sound, image, graphics, search mechanisms, electronic libraries, as well as the Internet, whether it is remotely or in the classroom. What distinguishes e-learning is several benefits pointed out by experts and specialists in the field of education, where Paulsen (2009) indicated that e-learning has transcended the limitations of space and time in the educational process. According to Radu and others (Radu et al, 2011), it enhances the learner's self-confidence and increases the learners' ability to take responsibility. Al-Hinnawi (2013) believes that e-learning activates the possibility of communication and communication between the parties to the educational situation through discussion sessions, dialogue, e-mail, dialogue rooms, social networks and learning management systems. It reduces some administrative burdens on the teacher, such as distributing assignments to students electronically, correcting and documenting them, and publishing their results electronically, and helps in solving the problem of the knowledge revolution and the high demand for education.

Abdul Qadir (2013) indicates that e-learning provides a comprehensive evaluation of the ideal question banks, and (Kumpikaite, & Duoba, 2012) shows that e-learning helps in the process of processing information through the network and other information technology. Al-Naimi (2001) indicated that the employment of technological innovations resulting from the existing marriage between information technology and educational technology in the educational process, has become an urgent matter that requires the educational system to make a qualitative leap in goals in order to achieve them, so that the most important thing is to provide individuals with a set of skills that life needs At this time, including self-learning skills and the possibilities they contain of dealing with technological innovations, and self-management skills, rather than providing them with information.

Al-Lami (2007 and Al-Khawaja, 2004) explained that the use of technology in school performance, whether in the administrative, technical or educational aspects, makes it easier for the institution to advance and achieve its goals. Contemporary technology also contributes to developing the performance of individuals in various aspects, the more school administrations deal with Modern mechanisms and technology, the more they improve their performance and the closer they are to achieving their goals, in a more efficient and effective manner.

## Obstacles to applying e-learning at Palestine Technical University - Khadoree in the period of the Corona pandemic from the view point of students of the community service course

The researchers believe that in order for e-learning to achieve progress in the educational process, it needs a set of requirements that help advance it, and any defect in these requirements will lead to a problem in the application of e-learning, and negatively affect the educational process. A specific and pre-prepared educational plan according to a strategic plan presented by the Ministry of Education, so that it is relied upon in the application of this type of education, and that this plan is subject to study and experimentation first.

Al-Hinnawi (2013) referred to a set of requirements represented in the importance of providing the physical capabilities and basic infrastructure of modern technology required for e-learning related to devices, networks and their accessories. Providing technical capabilities related to the applied programs of curricula and services related to the educational situation, and producing scientific courses that meet international educational and technical standards. And the provision of technical human cadres of designers, trainers and technicians.

E-learning, as indicated by Larbas and his colleagues (Iribas et al, 2012), is asynchronous e-learning, where education is indirect, and students can interact with the educational course independently through educational programs loaded on the device or CDs, and the information available on the World Wide Web. . Also, synchronous e-learning, in which communication takes place between the parties to the educational process in a direct manner and at the same time, in which communication, communication, discussion and direct participation take place. Examples of simultaneous e-learning include virtual classes, conversation programs, and video conferences.

The Palestinian government has given great attention to e-learning, as the Ministry of Education announced on February 25, 2009 the launch of a laptop project for each student with the aim of promoting the use of technology in the educational process and creating quality in the educational process by using modern educational technology and techniques and enabling students to enter the world of technology At an early age. Despite these developments that the world is witnessing today, the Arab world still adopts traditional teaching methods that are not compatible with modern life and do not develop methods of creative thinking that must be employed by the teacher in an era that may be due to the great obstacles facing the application of e-learning in All educational institutions, where the educational literature referred to many of these obstacles facing educational and university administrations and limiting their ability to implement e-learning effectively. These challenges and obstacles varied between academic and personal obstacles.

Technology, technology and management. (The Indian, 2021).

There is also a set of previous studies that were concerned with the subject of the study, where Al-Omari (2020) presented a study whose aim was to evaluate the experience of Mutah University in the use of the e-learning management system (Moodle) by faculty members and their attitudes towards it, and the difficulties that limit its use. The study used the descriptive analytical method. The study sample consisted of (532) members of the teaching staff. The results of the study showed that the degree of both the use of the system and the obstacles that limit its use came to a medium degree, and that attitudes towards it were positive, and two gender differences were examined. The results also showed differences in use according to scientific rank, for those who were ranked as lecturer, assistant professor, and associate professor, compared with those who were ranked as professor, type of college in favor of humanities colleges, and experience for those whose experience is less than (5) years, from (6-16) years, and from (11) years. -15) years, compared to those with more than (15) years of experience. Al-Shdeifat study (2020) sought to identify the reality of the employment of distance

education due to the Corona disease in the schools of the Qasabat Al-Mafraq from the view point of the school principals there. To achieve the goal of the study, the descriptive approach was used, and a questionnaire was developed consisting of three domains (cognitive, skill, and evaluation) with (20) paragraphs, and its validity and reliability were verified, and then it was distributed to the study sample consisting of (145) principals. In the Qasabat Al-Mafraq schools. The results of the study showed that the reality of the employment of distance education due to corona disease from the view point of the principals of the Qasabat Al-Mafraq schools came to a medium degree, with an arithmetic mean (2.49). Distance education due to corona disease from the view point of the school principals of Qasabat Al-Mafraq, in addition to the absence of statistically significant differences in the estimates of the study sample members of the reality of the employment of distance education due to corona disease according to the variable of the school stage. Miqdadi (2020) conducted a study that aimed to reveal the perceptions of secondary school students in government schools in Jordan about the use of distance education in the period of the Corona crisis and its developments, and to identify the significance of the differences in the perceptions of secondary school students about the use of distance education in Jordan according to the gender variable. The study was applied in the second semester of 2020, and the descriptive survey method was used. The study sample consisted of (167) male and female students. They were selected by simple random method. The study concluded that the arithmetic averages ranged between (3.60-4.78), and the results of the study showed that there is a very large positive impact of the use of distance education in light of the emerging Corona crisis for the field, and also indicated that there are no differences in the estimates of the individual sample on the averages of the tool. as a whole according to the gender variable. Yalia, 2020 also investigated the ways in which the Corona pandemic affected the reshaping of education in Indonesia. The types and learning strategies used by teachers in the world were explained online due to the closure of educational institutions to limit the spread of the Corona virus epidemic. The descriptive survey approach, and to achieve the objectives of the study, the study used a questionnaire. The results of the study showed that there is a high speed of the impact of the Corona epidemic on the education system, as the traditional method of education declined to spread instead of learning through the Internet, and the study proved the importance of using various strategies to smooth and improve education through The Internet. Salim and Salih (2020) conducted a study whose aim was to identify the challenges facing students during distance learning during the Corona pandemic period. The study of the descriptive analytical approach, where a questionnaire was prepared that included (44) items distributed among its three domains: academic challenges, psychological challenges, and technical challenges. It was applied to a random sample of (339) undergraduate and master's students from An-Najah National University in the semester. The first is 2020/2021. Data were analyzed using descriptive statistics, and two independent samples t-test. The results of the study showed that the field of psychological challenges ranked first, followed by academic challenges, then technical challenges ranked last. There were statistically significant differences due to the study program variable in terms of the challenges facing students in distance learning during the Corona pandemic period in favor of undergraduate students. The study of Rashwan and Shaqfeh (2020) also aimed to identify the challenges and obstacles to the use of electronic accounting education in Palestinian universities during the period of the Corona pandemic, and to answer questions and test the hypotheses of the study, the researchers adopted the descriptive analytical approach, a comprehensive survey was conducted and the questionnaire distributed to the study population for a number (88) A faculty member, and (62) questionnaires were

## Obstacles to applying e-learning at Palestine Technical University - Khadoree in the period of the Corona pandemic from the view point of students of the community service course

analyzed with a response rate of (70.45%). The results of the study demonstrated the weakness of faculty members and students using electronic accounting education, and this was clearly evident in the period of the Corona pandemic when Palestinian universities used e-learning, and it was found that Palestinian universities suffer from a weakness in the material capabilities, devices and technological techniques for the development and use of electronic education in Online accounting education, especially during the pandemic period. The study recommended the need to enhance financial capabilities and develop strategic plans to develop electronic accounting education in Palestinian universities to face crises such as the Corona pandemic crisis. Al-Jazzar's study (Aljaser, 2019), which aimed to identify the effectiveness of the e-learning environment in developing academic achievement, showed the trend towards learning English for fifth grade students.

The e-learning environment was designed and a test and scale were prepared to assess the tendency towards learning English. The quasi-experimental approach was applied to a sample of fifth grade students, divided into a control group taught through the traditional method, and an experimental group taught through the e-learning environment. The results of the study showed that there were statistically significant differences in favor of the experimental group in both the post-achievement test and the measure of attitude towards learning the English language. In a study conducted by Bashir (Bashir, 2019) that aimed to model e-learning interaction, learner satisfaction and continuous learning intentions in Ugandan higher education institutions. A questionnaire consisting of 28 items, and it was applied to 232 learners. The results revealed that the e-learning interaction consists of a three-factor structure: the learner interface, the feedback interaction, and the learning content. Buhais and Abu Aqeel (2015) pointed out the obstacles to the application of e-learning in the schools of the Directorate of Education in South Hebron from the view point of the principals. The researchers used the descriptive analytical method for its relevance to this type of studies. The sample consisted of (167) male and female managers. The researchers designed a questionnaire for data collection purposes. The study concluded that the most important obstacle to the application of e-learning according to school principals is the obstacle of funding and infrastructure, as the arithmetic mean reached (4.04), followed by the teacher's obstacle, with an arithmetic mean of (3.91), and the least of these obstacles related to the educational system and administration, with an arithmetic average of (2.90), and it was found There were no statistically significant differences in estimating the obstacles to applying e-learning in the schools of the South Hebron Education Directorate due to the variables (gender, educational qualification, and years of experience). Based on the foregoing results, the researchers recommended recommendations, including providing adequate financial support for the development of infrastructure, content development, and staff to design the curriculum in a way that suits this type of learning.

### **Study Problem**

E-learning is one of the areas that are witnessing rapid growth as a result of scientific and technical developments, and the increasing demand for integrating technology into education, with the aim of building a generation capable of dealing with the new vocabulary of the era. And communication in the educational process, and from this view point , higher education institutions must prepare their students to face new developments, and the matter has become urgent in the period of the Corona pandemic that has affected the world, and the trend of educational institutions for e-learning as an alternative to face-to-face education as a result of social distancing, and so that the epidemic does not spread in Palestine has been Resorting to e-learning, whether in general education or in universities

and university colleges, and Palestine Technical University Khadoree is one of the institutions that used e-learning during the Corona pandemic period in the first semester of the academic year (2020/2021), and based on the leading position of e-learning, What it represents is an urgent need for university faculty members and students, especially in the period of the pandemic, and by virtue of the work of one of the researchers as a faculty member Teaching at the university This study comes to determine the actual reality of e-learning from the students' view point , which contributes to the development of the education system, especially its e-learning system. Thus, the study problem can be expressed through the following two questions:

1 - What are the obstacles to the application of e-learning at Palestine Technical University - Khadoree from the view point of students registered for the community service course during the period of the Corona pandemic?

2 - Are there statistically significant differences about the obstacles to e-learning at Palestine Technical University Khadoree from the view point of students registered for the community service course during the Corona pandemic period according to the variable (gender, college, housing, academic level)?

### **Study Objectives**

This study aims to:

1 - Identifying the obstacles to applying e-learning at Palestine Technical University - Khadoree from the view point of students registered for the community service course during the Corona pandemic period.

2 - To identify if there are statistically significant differences about the obstacles to e-learning at Palestine Technical University Khadoree from the view point of students registered for the community service course during the Corona pandemic period according to the variable (sex, college, housing, academic level).

### **Study hypotheses**

1 - There are no statistically significant differences at the significance level ( $0.05 \leq \alpha$ ) in the average responses of the study sample members about the obstacles to e-learning at Palestine Technical University Khadoree during the Corona pandemic period due to the gender variable.

2 - There are no statistically significant differences at the significance level ( $0.05 \leq \alpha$ ) in the average responses of the study sample members about the obstacles to e-learning at Palestine Technical University Khadoree during the Corona pandemic period due to the college variable.

3 - There are no statistically significant differences at the significance level ( $0.05 \leq \alpha$ ) in the average responses of the study sample members about the obstacles to e-learning at Palestine Technical University Khadoree in the period of the Corona pandemic due to the variable of the place of residence.

4 - There are no statistically significant differences at the significance level ( $0.05 \leq \alpha$ ) in the average responses of the study sample members about the obstacles to e-learning at Palestine Technical University Khadoree during the Corona pandemic period due to the academic level variable.

### **Study Importance**

#### **Theoretical importance**

E-learning and the employment of contemporary technologies in education are seen as one of the important axes in our time, which Arab libraries are concerned with to strengthen education, increase its level of efficiency and improve its effectiveness at all educational levels. Education at the local and

## Obstacles to applying e-learning at Palestine Technical University - Khadoree in the period of the Corona pandemic from the view point of students of the community service course

regional level is still narrow and needs more in-depth studies to reach appropriate remedial methods that help universities employ this type of education in the finest ways to save time, effort and cost.

### **Practical importance**

The results of this study may help the university educational institution to identify the challenges it faces in applying e-learning and to find appropriate ways and solutions to address them by providing feasible infrastructure and gradual application of e-learning through the process of merging it with the traditional system of education. It is also useful in organizing training courses for students and faculty members to help them employ technology and how to apply e-learning in education and improve the communication process in the educational process.

### **Study limitation**

#### **This study was limited to the following limits:**

**Human limits:** Students registered for the community service course in the semester in which the study was conducted at Palestine Technical University Khadoree.

**Spatial limits:** Palestine Technical University Khadoree, headquarter (Tulkarem).

**Time limits:** the first semester of the academic year 2020/2021.

### **Study Terminology**

**E-learning:** defined by (Berg, Simonson, 2018) as an interactive system linked to the educational process of learning, and this system is based on the existence of a digital electronic environment that presents the students with courses through electronic networks and smart devices.

And it was defined by (Basilaia, Kavadze, 2020) e-learning is an organized process that aims to achieve educational outcomes using technological means that provide sound, image, films and interaction between the learner, content and educational activities in a timely manner.

**E-learning obstacles:** the researcher defines them procedurally as all issues related to the educational-learning process (academic - technical - administrative) that weaken or reduce the university's ability to apply the method of e-learning in the educational process.

**University:** An independent scientific institution with a specific organizational structure and certain academic systems, norms and traditions, and its main functions are teaching, scientific research and community service. It consists of a group of colleges and departments of a specialized scientific nature and offers various study programs in different disciplines, including those at the bachelor's level, including What is the level of postgraduate studies according to which degrees are awarded to students (Al-Thubaiti, 2000, p. 214).

**Corona pandemic (Covid-19):** It is a family of viruses that may cause illness in animals and humans, and cause respiratory diseases in humans ranging in severity from the common cold to more severe diseases such as Middle East Respiratory Syndrome and Severe Acute Respiratory Syndrome (SARS), It is characterized by a rapid spread (WHO, 2019).

### **Method and Procedure**

This chapter includes a description of the methods and procedures followed by the researchers in defining and describing the study population and the sample, and an explanation of the practical steps and procedures that the researchers followed in building and describing the study tool, then the procedures for validity and reliability of the study tool, then explaining the study design scheme and its variables, and referring to the types of statistical tests that were used in the study of application obstacles. E-learning at Palestine Technical University - Khadoree in the period of the Corona pandemic from the view point of students registered for the community service course.

**Study community**

The study population consisted of all students of Palestine Technical University - Khadoree who registered for the community service course in the first semester of the academic year (2020-2021), and their number was (388) students, according to the records available in the Admission and Registration Department.

**Study sample**

The size of the study sample was (44) male and female students enrolled in the community service course for the first semester of the academic year (2020-2021), where this sample was chosen randomly through the (SPSS) software. College, major, place of residence, academic level, so that it was distributed among all groups and the goal was achieved. The following table describes the study sample based on its independent variables.

**Table (1) Distribution of the study sample based on its main variables**

variable	category	Repetition	Percentage
<b>Gender</b>	Male	15	34.1
	female	29	65.9
	<b>Total</b>	<b>44</b>	<b>100</b>
<b>College</b>	Arts and educational sciences	11	25
	applied Sciences	6	13.6
	engineering and technology	16	36.4
	economics and business	10	22.7
	Agricultural technology and engineering	1	2.3
	<b>Total</b>	<b>44</b>	<b>100</b>
<b>Specialization</b>	media technology	<b>6</b>	<b>13.6</b>
	Design and applied arts	1	2.3
	technology education	2	4.5
	Physical Education	1	2.3
	physics	1	2.3
	chemistry	4	9.1
	construction engineering	3	6.8
	computer systems engineering	5	11.4
	Communications Engineering	2	4.5
	electrical engineering	3	6.8
	mechanical engineering	3	6.8
	Computerized banking and financial sciences	7	15.9



Obstacles to applying e-learning at Palestine Technical University - Khadoree in the period of the Corona pandemic from the view point of students of the community service course

	industrial management	1	2.3
	Business administration and e-commerce	2	4.5
	Accounting Information Systems	1	2.3
	Horticulture and agricultural extension	2	4.5
	<b>Total</b>	<b>44</b>	<b>100</b>
<b>place of residence</b>	city	20	45.5
	village	22	50
	camp	2	4.5
	<b>Total</b>	<b>44</b>	<b>100</b>
<b>Academic level</b>	Second Year	19	43.2
	third year	15	34.1
	Fourth year	6	13.6
	fifth year	4	9.1
	<b>Total</b>	<b>44</b>	<b>100</b>

### Data collection sources

**Secondary sources:** through theoretical studies related to the subject of study from available books and through previous studies represented by the study literature

**Primary sources:** They are the main data obtained through a questionnaire that was designed to meet the purposes of the study

### Study Variables

In this study, the obstacles to the application of e-learning at Palestine Technical University, the main branch, during the Corona pandemic period will be identified from the view point of the students of the community service course using the Five-Year Likert Scale in order to test the correlative and causal relationships between these variables.

### Study Tools

This data and information was obtained by analyzing a questionnaire that was specially prepared for this study according to the statistical method through the SPSS program, which works through the following

- Gathering information through a questionnaire

The method of statistical analysis of data

• Tools of statistical analysis by means of arithmetic averages and relative weights. The questionnaire was designed according to the five-point Likert scale. The paragraphs were built and the weights were given as follows:

<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly disagree</b>
5	4	3	2	1

### Tool Validity

The validity of the tool was verified by presenting it to a group of arbitrators with expertise and experience in the field, where they were asked to express their opinion on the paragraphs of the questionnaire by deleting, modifying and adding new paragraphs that are appropriate to the subject of the study. Key areas distributed over 30 paragraphs.

tool validity:

Validity is defined as the accuracy in estimating the individual's true score on the trait measured by the test, and the validity of the study tool used by the researcher is according to the reliability coefficient using Cronbach's alpha equation, and it was (0.907) on all paragraphs of the questionnaire. It is characterized by a high degree of validity.

Internal consistency validity:

Internal consistency means the extent to which each paragraph of the questionnaire is consistent with the field to which the paragraph belongs, in addition to the extent to which each field of study is consistent with the total score of the questionnaire. The researchers calculated the internal consistency by calculating the correlation coefficients for each field with the total degree. The following table shows the internal consistency for each field of study on the overall score.

**Table (2), the correlation matrix between each field of study and the total score**

No	Topic	The field of technical obstacles	The field of administrative obstacles		The field of academic obstacles	over all field
1	The field of technical obstacles	correlation coefficient		1		
		Calculated significance level				
2	The field of administrative obstacles	correlation coefficient	1	<b>.633**</b>		
		Calculated significance level		0		
3	The field of academic obstacles	correlation coefficient	<b>.681**</b>	<b>.559**</b>	1	
		Calculated significance level	0	0		
	<b>overall field</b>	correlation coefficient	<b>.903**</b>	<b>.826**</b>	<b>.867**</b>	1

Obstacles to applying e-learning at Palestine Technical University - Khadoree in the period of the Corona pandemic from the view point of students of the community service course

	Calculated significance level	0	0	0	
--	-------------------------------	---	---	---	--

Table (2) shows the correlation matrix between each field of study and the total score, which indicates that the indicated correlation coefficients are significant at a significant level ( $\alpha = 0.05$ ), where we find that the calculated level of significance in all cases is (0.000) and this value is less than ( $\alpha = . 0.05$ ) and thus the domains are considered true for what they were set for, between each of the domains and the total domain.

### Statistical methods

The following are a number of statistical methods that were used in the research to describe the study sample, describe its variables, and describe its hypotheses:

Descriptive statistics methods in order to describe the characteristics of the sample items and extract percentages and frequencies

Descriptive statistics methods such as measures of central tendency and dispersion in order to describe the response of the sample members towards the study variables based on the arithmetic average and standard deviation

Inferential statistics methods to test the hypotheses of the study, to test the hypotheses of the study.

In order to judge the degree or percentage of disability in the application of e-learning at Khadoree University, according to the estimates of the study sample members, the researchers adopted the following relative weight, due to its validity and relevance to the subject of the study.

Arithmetic average (1-1.80) or what percentage (less than 36) indicates a very low score

Arithmetic average (1.81-2.60) or percentage (36.1%-52%) indicates a low degree

Arithmetic average (2.61–3.40) or a percentage (52.1%–68%) indicating an average degree

Arithmetic average (3.41–4.20) or a percentage (68.1%–84%) indicating a significant degree

An arithmetic average (4.21-5) or a percentage (more than 84%) indicates a very high degree

### Results

This part addresses the answer to the hypotheses of the study and its statistical examination on the Statistical Package for Social Sciences (SPSS) program. The results of the study are presented below.

The first question: What are the obstacles to the application of e-learning at Palestine Technical University - Khadoree - the main branch during the Corona pandemic period from the view point of students registered for the community service course:

In order to answer this question, arithmetic averages and arithmetic averages were calculated as percentages, and the results of tables (3-6) show that:

### Table (3) Arithmetic averages and percentages for the field of technical obstacles

No.	Item	Averages	percentage
1	Weak internet infrastructure	4.1591	83.182
2	Weakness of laboratory equipment, including modern tools and equipment necessary for e-learning	3.5227	70.454
3	The lack of computers for all students	4.1591	83.182
4	Weak internet for all students	4	80
5	Constant power cuts	4.0682	81.364
6	Weak electronic services represented in the remote examination system, the model, the zoom system, the portel system and the e-mail service	3.8864	77.728
7	Weak technical expertise of the people responsible for the e-learning management process	3.4318	68.636
8	E-learning lacks privacy and confidentiality in preserving information and data	3.0909	61.818
9	Lack of experience and weak technical support in the field of educational technology among students	3.9318	78.636
	<b>total field</b>	<b>3.8049</b>	<b>76.098</b>

The results of Table (3) indicate that (83%) of the respondents believe that the weak infrastructure of Internet networks and the lack of computers for all community service students are the most technical obstacles to e-learning, as indicated by about (79%) of the respondents who believe that the lack of experience Weak technical support in the field of educational technology among community service students is considered one of the technical obstacles to e-learning, as the results indicated that about (62%) of the respondents believe that e-learning lacks privacy and confidentiality in preserving information and data. And modern devices necessary for e-learning are among the technical obstacles to e-learning, as indicated by about (70%) of the respondents in general, we find that about (76%) of the respondents believe that there are technical obstacles facing e-learning at Falteen Technical University - Khadoree from the students' view point Those who registered for the community service course - the headquarters were highly and with Arithmetic average of (3.80)

**Table (4) Arithmetic averages and percentages for the domain of administrative obstacles**

No.	Item	Averages	percentage
1	The large number of students at the university does not allow the use of e-learning	3.3409	66.818
2	Lack of a clear plan and philosophy for the goals of e-learning	3.7955	75.91
3	E-learning lacks the method of interaction between the student and the lecturer	3.9091	78.182
4	Lack of awareness towards e-learning among students	3.9318	78.636

Obstacles to applying e-learning at Palestine Technical University - Khadoree in the period of the Corona pandemic from the view point of students of the community service course

5	The e-learning experience came as a surprise, and there was no qualification for the experience	4.25	85
6	Not adapting the curriculum to the e-learning technology	4	80
7	Lack of conviction towards e-learning among students	4.1136	82.272
8	Lack of experience among students in how to use e-learning	3.7727	75.454
9	Not enough time for e-learning training	3.8837	77.674
10	The lack of training and guidance by the competent authorities negatively affected e-learning	3.8409	76.818
11	The negative view and the community's lack of conviction towards the credibility of e-learning	3.6591	73.182
	total field	<b>3.8647</b>	<b>77.294</b>

It is clear from the results of Table (4) that about 82% of the respondents believe that one of the most administrative obstacles to e-learning is the lack of conviction towards e-learning among community service students. It is considered one of the administrative obstacles to e-learning, and the results showed that the administrative obstacles to e-learning is the large number of students in the university, which does not allow the use of e-learning, as it was shown by about (67%) of the respondents as between about (73%) of the respondents that there is a view Negativity and lack of conviction among the community about the credibility of e-learning, which constitutes an obstacle to its application. In general, we find that about (77%) of the respondents believe that there are administrative obstacles that prevent the success of the application of e-learning at the Philitin Technical University - Khadoree from the view point of the students registered for the community service course in the correct manner, which were to a large extent and with an arithmetic average of (3.86)

**Table (5) Arithmetic averages and percentages for the domain of academic obstacles**

No.	Item	Averages	percentage
1	Lack of academic staff who are fluent in designing e-learning	4.0909	81.818
2	There is a difficulty in dealing with lecturers in e-learning	3.6136	72.272
3	Lack of a clear academic plan for the semester activities	3.6364	72.728
4	Lack of academic controls and instructions regarding e-learning mechanisms	3.5682	71.364

5	The lack of experience of the lecturers in how to use the e-learning program	3.3953	67.906
6	Lack of contentment in e-learning among lecturers negatively affects the level of performance	3.3409	66.818
7	Lack of experience and training leads to a lack of interaction between students and academic staff	3.5909	71.818
8	Conflicting decisions about exams and homework	4.1136	82.272
9	The weakness of the English language among university students negatively affects e-learning	4.2045	84.09
10	E-learning is a modern method in the educational process	3.75	75
	<b>total field</b>	<b>3.7295</b>	<b>74.59</b>

It is clear from the results of Table (5) that about (84%) of the respondents believe that the weakness of the English language among university students negatively affects e-learning, which constitutes an academic obstacle to the application of e-learning in its correct form, while about (82%) of the respondents see One of the academic obstacles towards e-learning is the lack of academic staff who are proficient in designing e-learning, while (75%) of the respondents said e-learning is a modern method in the educational process. In general, we find that 74.59% of the respondents said that there are academic obstacles facing the implementation of e-learning at Palestine Technical University - Khadoree from the students' view point correctly, which were to a large extent and with an arithmetic average of (3.72).

**Table (6) Arithmetic averages and percentages on all fields**

No.	Item	Averages	percentage
1	<b>The field of technical obstacles</b>	3.8049	76.098
2	<b>The field of administrative obstacles</b>	3.8647	77.294
3	<b>The field of academic obstacles</b>	3.7295	74.59
	<b>overall field</b>	<b>3.7997</b>	<b>75.994</b>

It is evident from the results in Table (6) that among the most important obstacles facing e-learning from the view point of the students of Palestine Technical University - Khadoree - Headquarters are the administrative obstacles, followed by the technical obstacles and the last of them is the academic obstacles. As for the obstacles on all obstacles, they were to a large degree and with an average of

Obstacles to applying e-learning at Palestine Technical University - Khadoree in the period of the Corona pandemic from the view point of students of the community service course

(3.79), and the researchers attributed that the reason for this is the weakness of students using e-learning, and this appeared clearly during the Corona pandemic period when Palestinian universities used e-learning, as well as the weakness in the material capabilities and devices And technological techniques for developing e-learning and using it in e-learning, especially during the pandemic period, and not equipping specialized and modern laboratories in the field of e-learning, which should contribute to raising the level of competence and experience of students at the university. This result is consistent with the result of the study of Saleem, Heba and Salih, Yaman, (2020), which showed that the field of psychological challenges, academic challenges, and technical challenges to a large extent, and with the result of Rashwan and Shaqfa (2020), which proved the existence of weakness among students using electronic accounting education, and it differed with The result of Al-Omari study (2020), which showed that the degree of both the use of the system and the obstacles that limit its use came to a medium degree. And the Shdeifat study (2020), which showed that the reality of the employment of distance education due to corona disease from the view point of the principals of the Qasabat Al-Mafraq schools came to a medium degree as well.

**The second question:** Are there statistically significant differences about the obstacles to e-learning at Palestine Technical University Khadoree from the view point of students registered for the community service course during the Corona pandemic, according to the variable (gender, college, housing, academic level)?

In order to answer the following question, the following null hypotheses were formulated:

Hypothesis test results

**The first hypothesis:** There are no statistically significant differences at the level of significance ( $\mu = 0.05$ ) in the obstacles of e-learning at Palestine Technical University - Khadoree - the main branch during the Corona pandemic period from the view point of community service students according to the gender variable. In order to test this hypothesis, the arithmetic averages and standard deviations were calculated and the t-test for independent samples was used to find out the obstacles to e-learning at Palestine Technical University - Khadoree - the main branch during the Corona pandemic period from the view point of students enrolled in the community service course according to the gender variable.

**Table (7) tests for independent samples on all fields**

Topic	Male N=15		Female N = 29		T value	Calculated significance level
	standard deviation	Arithmetic Average	standard deviation	Arithmetic Average		
The field of technical obstacles	0.67066	3.687	0.40323	3.8659	-1.107	0.275
The field of administrative obstacles	0.85101	3.7121	0.47388	3.9436	-0.978	0.341

<b>The field of academic obstacles</b>	0.70576	3.4667	0.46003	3.8655	- 2.263	0.029
<b>overall field</b>	<b>0.6904</b>	<b>3.6219</b>	<b>0.33939</b>	<b>3.8917</b>	- <b>1.427</b>	<b>0.171</b>

It is clear from the results of Table (7) that there are differences in the arithmetic averages between males and females in the obstacles to applying e-learning at Palestine Technical University - Khadoree - the main branch during the Corona pandemic period from the view point of community service students according to the gender variable, where the (T) test was used. ) for independent samples to clarify these differences, as the results of the t-test showed that these differences are not significantly indicative of each of the domain of technical obstacles, the domain of administrative obstacles, and the overall domain, where the level of significance calculated on these two domains and on the total domain is higher than the significance level specified by the null hypothesis ( $\alpha = 0.05$ ), which indicates the lack of difference in the views of the respondents about the obstacles to e-learning at Palestine Technical University - Khadoree - the main branch in the period of the Corona pandemic from the view point of students registered for the community service course according to gender, while the results showed that there are statistically significant differences about Obstacles to applying e-learning at Palestine Technical University - Khadoree - the main branch in the period of the Corona pandemic from the view point of students registered for the community service course according to the gender variable on the field of the handicap The level of significance calculated for this field was (0.029), and this value is less than ( $\alpha = 0.05$ ), which indicates a difference in views between respondents about the obstacles to e-learning at Palestine Technical University - Khadoree - the main branch during the Corona pandemic period from the view point of the The view of the students enrolled in the community service course according to gender, and the researcher attributes to the fact that the reason for the difference in viewpoints between males and females in the field of academic obstacles is due to the fact that females are more keen to regularly attend electronic lectures, as well as more committed to regulations, laws and instructions because of their psychological nature and more careful in applying the instructions of penalties . This result is consistent with what was stated in the Al-Shdifat study (2020), which showed that there were statistically significant differences in the estimates of the study sample members of the reality of the gender variable, in favor of females in the employment of distance education due to corona disease from the view point of the principals of Qasabat Al-Mafraq schools, and it differed with the Miqdadi study. (2020) which indicated that there were no differences in the estimates of the individual sample on the averages of the tool as a whole according to the gender variable, and the study of Buhais and Abu Aqeel (2015), which indicated that there were no statistically significant differences in the estimation of the obstacles to the application of e-learning in the schools of the Directorate of Education in South Hebron that were attributed for the gender variable.

The second hypothesis: There are no statistically significant differences at the level of significance ( $\alpha = 0.05$ ) in the obstacles of e-learning at Palestine Technical University, the main branch, during the period of the Corona pandemic from the view point of students enrolled in the community service course according to the college variable.

To test whether these differences are statistically significant, one-way analysis of variance was used, and the results of Table (8) show that.



Obstacles to applying e-learning at Palestine Technical University - Khadoree in the period of the Corona pandemic from the view point of students of the community service course

**Table (8) The results of the one-way variance analysis to indicate the differences between the arithmetic averages in the obstacles to the application of e-learning at Palestine Technical University - the main branch during the Corona pandemic period from the view point of students enrolled in the community service course according to the college variable**

variable Topics	Contrast Source	Degrees of Freedom	sum of squares of deviations	deviations average	F values	Calculated significance level
The field of technical obstacles	between groups	4	1.079	0.27	1.043	<b>0.398</b>
	within groups	39	10.087	0.259		
	Total	43	11.166			
The field of administrative obstacles	between groups	4	1.24	0.31	0.769	<b>0.552</b>
	within groups	39	15.717	0.403		
	Total	43	16.957			
The field of academic obstacles	between groups	4	3.323	0.831	2.906	<b>0.034</b>
	within groups	39	11.149	0.286		
	Total	43	14.472			
overall field	between groups	<b>4</b>	<b>1.568</b>	<b>0.392</b>	<b>1.689</b>	<b>0.172</b>
	within groups	<b>39</b>	<b>9.05</b>	<b>0.232</b>		

	<b>Total</b>	<b>43</b>	<b>10.618</b>			
--	--------------	-----------	---------------	--	--	--

It is clear from table (8) that there are no statistically significant differences at the level of significance ( $\mu = 0.05$ ) obstacles to e-learning at Palestine Technical University, the main branch, during the pandemic period from the view point of students enrolled in the community service course according to the college variable. This was done on the field of technical obstacles and the field of administrative obstacles, as well as on the overall field, where the level of significance calculated on these two areas and the total field was higher than the level of significance specified in the hypothesis. Which indicates that there is no difference in views between the respondents according to the difference in the college of the respondents on these two fields and the total field on the application of obstacles to the application of e-learning at Palestine Technical University during the Corona pandemic period from the view point of students registered for the community service course according to the college variable. The researcher attributed that the reason for this is due to the similar nature of the programs and study plans between the scientific faculties and the faculties of human sciences, in addition to the fact that there is a convergence between the levels of students in terms of experience and efficiency in the field of using computer programs and e-learning, as we live in the age of the Internet, and this result differs with the result of Al-Omari study (2020), which showed differences and in favor of the humanities faculties.

The third hypothesis: There are no statistically significant differences at the level of significance ( $\alpha = 0.05$ ) in the obstacles of e-learning at Palestine Technical University, the main branch, in the period of the Corona pandemic from the view point of students enrolled in the community service course according to the specialization variable.

The results of the study indicated that there were differences in the arithmetic averages in the obstacles of e-learning at Palestine Technical University - Khadoree - the main branch during the Corona pandemic period from the view point of students registered for the community service course according to the specialization variable. To test whether these differences are statistically significant, one-way analysis of variance was used, and the results of Table (9) show that.

**Table (9) The results of the one-way variance analysis to indicate the differences between the arithmetic averages in the obstacles of e-learning at Palestine Technical University - Khadoree - the main branch during the Corona pandemic period from the view point of community service students according to the variable of specialization**

<b>variable</b>						
<b>Topics</b>	<b>Contrast Source</b>	<b>Degrees of Freedom</b>	<b>sum of squares of deviations</b>	<b>deviations average</b>	<b>F values</b>	<b>Calculated significance level</b>

Obstacles to applying e-learning at Palestine Technical University - Khadoree in the period of the Corona pandemic from the view point of students of the community service course

<b>The field of technical obstacles</b>	between groups	15	2.951	0.197	<b>0.67</b>	<b>0.79</b>
	within groups	28	8.215	0.293		
	Total	43	11.166			
<b>The field of administrative obstacles</b>	between groups	15	8.254	0.55	<b>1.77</b>	<b>0.093</b>
	within groups	28	8.703	0.311		
	Total	43	16.957			
<b>The field of academic obstacles</b>	between groups	15	8.395	0.56	<b>2.579</b>	<b>0.015</b>
	within groups	28	6.077	0.217		
	Total	43	14.472			
<b>overall field</b>	<b>between groups</b>	<b>15</b>	<b>5.189</b>	<b>0.346</b>	<b>1.784</b>	<b>0.09</b>
	<b>within groups</b>	<b>28</b>	<b>5.429</b>	<b>0.194</b>		
	<b>Total</b>	<b>43</b>	<b>10.618</b>			

It is clear from table (9) that there are no statistically significant differences at the level of significance ( $\mu$ ) = 0.05) obstacles to e-learning at Palestine Technical University - Khadoree - the main branch during the Corona pandemic period from the view point of students registered for the community service course according to the specialization variable. This was done on the field of technical obstacles and the field of administrative obstacles, as well as on the overall field, where the level of significance calculated on these two areas and the total field was higher than the level of significance specified in the hypothesis. Which indicates that there is no difference in views between the respondents according to the different specialization of the respondents on these two fields and the total field about the

obstacles of e-learning at Palestine Technical University - Khadoree - the main branch during the period of the Corona pandemic from the view point of students registered for the community service course according to the variable of specialization. While we find that there are statistically significant differences at the level of significance ( $\alpha = 0.05$ ) on the field of academic obstacles, where the level of significance calculated on this field reached (0.015), and this value is less than ( $\alpha = 0.05$ ), and this means that there is a difference in the views of the respondents about Obstacles to e-learning at Palestine Technical University - Khadoree - the main branch in the period of the Corona pandemic from the view point of students registered for the community service course in different specialization, and the researcher is attributed to the fact that the reason for the difference is due to the different study plans and academic and scientific programs between disciplines, considering that students of scientific disciplines have Courses that focus on the scientific-technical aspect of laboratories and engineering workshops more than students of specializations in the field of humanities such as economics, sports and literature, and this results in a difference of views.

Fourth hypothesis: There are no statistically significant differences at the level of significance ( $\alpha = 0.05$ ) in the obstacles to the application of e-learning at Palestine Technical University - Khadoree - the main branch during the Corona pandemic period from the perspective of university students according to the variable of place of residence.

The results of the study indicated that there are differences in the arithmetic averages in the obstacles of e-learning at Palestine Technical University - Khadoree - the main branch during the period of the Corona pandemic from the view point of students registered for the community service course according to the variable of place of residence. To test whether these differences are statistically significant, one-way analysis of variance was used, and the results of Table (10) show that.

**Table (10) Results of the one-way variance analysis for the significance of the differences between the arithmetic averages in the obstacles of e-learning at Palestine Technical University - Khadoree - the main branch during the Corona pandemic period from the view point of university students according to the variable of place of residence**

Variable Topics	Contrast Source	Degrees of Freedom	sum of squares of deviations	deviations average	F values	Calculated significance level
The field of technical obstacles	between groups	2	0.075	0.037	0.138	<b>0.872</b>
	within groups	41	11.091	0.271		
	Total	43	11.166			

Obstacles to applying e-learning at Palestine Technical University - Khadoree in the period of the Corona pandemic from the view point of students of the community service course

<b>The field of administrative obstacles</b>	between groups	2	0.51	0.255	0.636	<b>0.534</b>
	within groups	41	16.446	0.401		
	Total	43	16.957			
<b>The field of academic obstacles</b>	between groups	2	0.265	0.132	0.382	<b>0.685</b>
	within groups	41	14.207	0.347		
	Total	43	14.472			
<b>overall field</b>	<b>between groups</b>	<b>2</b>	<b>0.205</b>	<b>0.103</b>	<b>0.404</b>	<b>0.67</b>
	<b>within groups</b>	<b>41</b>	<b>10.412</b>	<b>0.254</b>		
	<b>Total</b>	<b>43</b>	<b>10.618</b>			

It is clear from table (10) that there are no statistically significant differences at the level of significance ( $\mu$ ) = 0.05) obstacles to e-learning at Palestine Technical University - Khadoree - the main branch during the Corona pandemic period from the view point of the students registered for the community service course according to the variable of the place of residence, This was done on the field of technical obstacles, the field of administrative obstacles, the field of academic obstacles, as well as the overall field, where the level of significance calculated on these areas and the total field was higher than the level of significance specified in the hypothesis. Which indicates that there is no difference in viewpoints between the respondents according to the different place of residence of the respondents on these areas and the total field about the obstacles of e-learning at Palestine Technical University - Khadoree - the main branch in the period of the Corona pandemic from the view point of students registered for the community service course according to the variable of the place of residence, The researcher attributes this to the homogeneity of conditions and capabilities related to the seriousness of e-learning with regard to the housing variable, so there is no difference in viewpoints accordingly.

To the knowledge of the researchers, there are no previous studies that depended on the variables of specialization and place of residence as independent variables in these studies.

The fifth hypothesis: There are no statistically significant differences at the level of significance ( $\alpha$  = 0.05) in the obstacles of e-learning at Palestine Technical University - the main branch during the

Corona pandemic period from the view point of students enrolled in the community service course according to the academic level variable.

The results of the study indicated that there are differences in the arithmetic averages in the obstacles of e-learning at Palestine Technical University - Khadoree - the main branch during the Corona pandemic period from the view point of students enrolled in the community service course according to the academic level variable. To test whether these differences are statistically significant, one-way analysis of variance was used, and the results of Table (11) showed that.

**Table (11) Results of the one-way variance analysis to indicate the differences between the arithmetic averages in the obstacles of e-learning at Palestine Technical University - Khadoree - the main branch during the Corona pandemic period from the view point of community service students according to the academic level variable**

variable						
	Contrast Source	Degrees of Freedom	sum of squares of deviations	average deviations	F Value – calculated	Calculated significance level
Topics						
The field of technical obstacles	between groups	3	1.492	0.497	2.057	<b>0.121</b>
	within groups	40	9.674	0.242		
	Total	43	11.166			
The field of administrative obstacles	between groups	3	1.7	0.567	1.486	<b>0.233</b>
	within groups	40	15.256	0.381		
	Total	43	16.957			
The field of academic obstacles	between groups	3	0.919	0.306	0.904	<b>0.448</b>
	within groups	40	13.553	0.339		
	Total	43	14.472			

Obstacles to applying e-learning at Palestine Technical University - Khadoree in the period of the Corona pandemic from the view point of students of the community service course

<b>overall field</b>	<b>between groups</b>	<b>3</b>	<b>1.173</b>	<b>0.391</b>	<b>1.656</b>	<b>0.192</b>
	<b>within groups</b>	<b>40</b>	<b>9.445</b>	<b>0.236</b>		
	<b>Total</b>	<b>43</b>	<b>10.618</b>			

It is clear from table (11) that there are no statistically significant differences at the level of significance ( $\mu$ ) = 0.05) obstacles to e-learning at Palestine Technical University - Khadoree - the main branch in the period of the Corona pandemic from the view point of the students registered for the community service course according to the academic level variable, This was done on the field of technical obstacles, the field of administrative obstacles, the field of academic obstacles, as well as on the overall field, where the level of significance calculated on these areas and the total field was higher than the level of significance specified in the hypothesis. Which indicates that there is no difference in viewpoints between the respondents according to the different academic level of the respondents on these areas and the overall field about the obstacles of e-learning at Palestine Technical University - Khadoree - the main branch during the Corona pandemic period from the view point of students registered for the community service course according to the academic level variable, The researcher attributed this to the homogeneity of experience in the e-learning experience among students, considering that it was surprising for all academic levels of university students in the field of e-learning, so there is no difference in views according to the academic level variable. This is consistent with the study of Al-Shdifat (2020), which indicated that there were no statistically significant differences in the estimates of the study sample members of the reality of the employment of distance education due to Corona disease, according to the variable of the school stage.

### Recommendations

Based on the results of the study, the study reached a set of results that were as follows

Working on developing the infrastructure of the Internet within the university campus and preparing new halls equipped with computers to match the annual increase in the number of students.

Benefiting from the experiences of other universities at home and abroad and enriching the information and practical experience of the university's specialized staff with regard to technical support in the field of educational technology.

Working on preparing specialized and modern laboratories in the field of e-learning, which contribute to raising the level of competence and experience of students at the university.

Work to establish the correct rules for e-learning among students and raise the level of conviction towards e-learning as an alternative educational approach to face-to-face education, which has been approved in all universities abroad for many years.

Working on benefiting from the e-learning experience, which was surprising for all students, teaching and administrative staff from the competent authorities, evaluating it as an experiment, and focusing on the weaknesses in order to overcome them and control them by developing the necessary plans for this and strengthening the strengths in order to obtain the best results.

Work to rehabilitate and train the academic staff as one of the elements of academic quality through holding specialized training courses in this field.

Work on adapting the curriculum, redesigning and building it in line with the e-learning approach, and that it be presented in a deliberate and systematic manner that takes into account the foundations and rules of e-learning.

### **Thanks, gratitude and appreciation**

The researchers extend their sincere thanks and appreciation to everyone who contributed to the success of this work, especially the administration of Palestine Technical University Khadoree for their contribution to the dissemination of this work.

### **References**

1. Al-Lami, Ghassan Qassem (2007). Technology Department, Amman: Curriculum House for Publishing and Distribution.
2. Buhais, Jamal Muhammad, and Abu Aqil, Salim Ahmed (2015). Obstacles to applying e-learning in the schools of the South Hebron Education Directorate from the view point of school principals. Scientific Journal. Palestine Technical College. Gaza . Palestine. number(2).
3. Edoneer Digital Education Program. <https://edu.pioneergo.org/lubanzis-story/>
4. Al-Thubaity, Meligan, Moaid. (2000). Universities: their inception, concept and functions, a descriptive and analytical study, the Educational Journal of Kuwait University, Scientific Publication Council, p. (54).
5. Hanawy, Majdy (2013). Technology Education. First Edition, Amman: Al-Quds Open University Publications, Jordan.
6. Al-Khawaja, Abdul-Fattah Muhammad (2004). The development of school administration, its theoretical foundations and its field and practical applications, Dar Al-Wafaa Press, Alexandria, Egypt.
7. Rashwan, Abdul Rahman Muhammad Suleiman, Shaqfa, Khalil Ibrahim Abdullah, (2020). Challenges and Obstacles to Using Electronic Accounting Education in Palestinian Universities During the Corona Pandemic, The Economic Researcher Journal, Volume (8) Issue (2), pp. 75-89.
8. Shdeifat, Munira (2020). The reality of the employment of distance education due to corona disease in the schools of the Qasabat Al-Mafraq from the view point of the school principals in them. The Arab Journal for Scientific Publishing, (Peace be upon him) 19, 185-207.
9. Amer, Tariq Abdel-Raouf (2007). Education and E-School, Arab Republic of Egypt. Cloud House.
10. Abdel Hai, Ramzy (2006). Towards an Electronic Society, Cairo, Egypt. Zahraa El Sharq.
11. Abdel Qader, Amal Hussein (2013). The Quality of E-Learning in Higher Education Institutions, The Arab Journal of Educational and Social Studies, No. 2, 82-67.
12. Al-Omari, Omar (2020). Evaluating the experience of Mutah University in using the e-learning management system Moodle. The Jordanian Journal of Educational Sciences, 16(2), 129-141.



Obstacles to applying e-learning at Palestine Technical University - Khadoree in the period of the Corona pandemic from the view point of students of the community service course

13. Miqdadi, Muhammad (2020). Perceptions of secondary school students in government schools in Jordan for the use of distance education in the period of the Corona crisis and its developments. *The Arab Journal of Scientific Publishing*, p. (19), 96-114.
14. World Health Organization website. (2019 AD). Corona Virus (Covid-19).
15. Al-Naimi, Najah Muhammad (2001). The effect of providing multimedia computer programs with access to the Internet on the level of informatics for student teachers with external and internal control sources and their achievement in the field of educational technologies, the Eighth Scientific Conference of the Egyptian Society for Educational Technology, College of Girls, Ain Shams University, World of Books, Cairo, 279- 314.
16. Heba, Salim and Salih, Yaman (2020). The challenges of distance learning in the period of the Corona pandemic: “An-Najah National University as a Model”, Conference on Entrepreneurship Perspectives for Higher Education Systems in the Arab World, April 27-28, 2021, Zarqa University, An-Najah National University.
17. Al-Hindi, Basma Mustafa, (2021). The effectiveness of a proposed training bag based on total quality standards on the creative thinking of teachers in the basic stage in southern Nablus, a master's thesis, An-Najah National University, Palestine

### Foreign References

1. Aljaser, A. M. (2019). The effectiveness of e-learning environment in developing academic achievement and the attitude to learn English among primary students. *Turkish Online Journal of Distance Education-TOJDE*, 20(2), 176-194.
2. Bashir, K. (2019). Modeling E-learning interactivity, learner satisfaction and continuance learning Intention in Ugandan higher learning institutions. *International Journal of Education and Development using Information and Communication Technology*.
3. Basilaia, G., &Kvavadze, D. (2020). Transition to Online Education in Schools during a SARS-CoV-2 Coronavirus (COVID-19) Pandemic in Georgia. *Pedagogical Research*, 5(4), em0060. <https://doi.org/10.29333/pr/7937> Retrieved, 27/5/2020.
4. Berg, G., Simonson, M. (2018). Distance learning. *Britannica*. <https://www.britannica.com/topic/distance-learning>
5. [http://www.waset.org/journals/waset/v65/v65-33.p df](http://www.waset.org/journals/waset/v65/v65-33.pdf).
6. Kumpikaite, Vilmante & Duoba, Kestutis, 2012, E-learning Process: Students’ Perspective, 3rd International Conference on e-Education e-Business, e-Management and e-Learning IPEDR Vol.27 IACSIT Press, Singapore.
7. Lribas, Alberdi, H & Martin, A & Aginako, N, 2012, Collaborative Web Platform for Rich Media Educational Material Creation, World Academy of Science, Engineering and Technology.
8. Paulsen, Morten Flate, 2009, Successful E-learning in Small and Medium-sized Enterprises, *European Journal of Open, Distance and E-Learning*. [http://www.eurodl.org/materials/contrib/2009/Morte n Paulsen.pdf](http://www.eurodl.org/materials/contrib/2009/Morten Paulsen.pdf).
9. Radu, Florin & Radu, Valentin & Croitoru, Gabriel, 2011, The Advantage of the New Technologies in Learning, Recent Researches in Artificial intelligence, Knowledge Engineering and Data Bases. <http://www.wseas.us/eLibrary/conferences/2011/Ca mbridge.pdf>.
10. Yulia, H. (2020). Online Learning to Prevent the Spread of Pandemic Corona Virus in Indonesia, *English Teaching Journal*, 11(1), 12-25.