The effectiveness of e-learning in light of the spread of the Corona virus from the point of view of teachers in public schools in Palestine

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Abstract: This study aimed to reveal the effectiveness of e-learning in light of the spread of the Corona virus from the point of view of teachers in public schools in Palestine.To achieve the objectives of the study, the descriptive analytical approach was relied.The study sample consisted of (50) English language teachers in public schools in Palestine who were taught during the spread of the Corona virus through the e-learning system.The necessary data were collected using a questionnaire whose reliability coefficient was (0.804) and was applied to the study sample. The results of the study revealed that the study sample's evaluation of the effectiveness of e-learning in light of the spread of the Corona virus from their point of view was reached (2.45) with a medium degree. The researchers recommended holding training courses in the field of e-learning for both teachers and students and to help get rid of all obstacles that prevent benefiting from the e-learning system followed, and the need to combine face- to- face education and e- education in higher education institutions in the future.

Keywords: e-learning, coronavirus, public schools in Palestine.

فاعلية التعلم الإلكتروني في ظل انتشار فيروس كورونا
من وجهة نظر المعلمين بالمدارس الحكومية في فلسطين

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المستخلص: هدفت هذه الدراسة إلى الكشف عن فاعلية التعلم الإلكتروني في ظل انتشار فيروس كورونا من وجهة نظر المعلمين في المدارس الحكومية في فلسطين، ولتحقيق أهداف الدراسة تم الاعتماد على المنهج الوصفي التحليلي. والاستبانة كأداة؛ بلغ معامل مصداقيتها (0.804) وتم تطبيقها على عينة بلغت (50) معلماً للغة الإنجليزية في المدارس الحكومية في فلسطين ممن وظفوا التكنولوجيا في التعليم عن بعد أثناء انتشار فيروس كورونا، وكشفت نتائج الدراسة أن فاعلية التعلم الإلكتروني في ظل انتشار فيروس كورونا من وجهة نظرهم؛ حصل على متوسط كلي (2.45 من5) بدرجة فاعلية متوسطة. واستنادا للنتائج أوصت الباحثة بضرورة عقد دورات تدريبية في مجال التعليم عن بعد لكل من المعلمين والطلاب للمساعدة في التخلص من كافة التحديات التي تحول دون الاستفادة من التعليم عن بعد خلال فترة انتشار الوباء، وضرورة الجمع بين التعليم وجهاً لوجه والتعليم عن بعد في الظروف الطبيعية مستقبلا.

الكلمات المفتاحية: التعليم الإلكتروني، فيروس كورونا، مدارس حكومية في فلسطين.

Introduction.

The Corona epidemic has invaded most countries of the world, and this is what forced all educational institutions to shift from face- to- face education that allows physical closeness, which

constitutes an opportunity for transmission of infection to e-learning or distance education. 1.5 billion children and young people in 188 countries around the world have had to stay in their homes after closing schools and higher education institutions (Affouneh, Salha, Khlaif 2020).

And distance learning (Open Distance Learning ODL) or electronic- learning EL is a type of learning that has been talked about for a long time and controversy about the need to integrate it into the educational process. Before the Corona pandemic, however, it became an alternative and an urgent necessity for the continuation of education in conditions that impose physical distancing. Artificial Intelligence) and the Internet of Things, as well as the information technology revolution that broke into the classroom and became an integral part of it.

Public schools in Palestine are one of the Palestinian universities that have experimented with e-learning in light of the Corona crisis, but the e-learning process has not been subjected to an evaluation process to measure its effectiveness, and this study came to measure the effectiveness of e-learning in light of the spread of the Corona virus from the point of view of English language teachers in public schools.

Study problem:

One of the main reasons of the success of the educational process is the E-learning, in light of the spread of modern means of communication from the computer, the internet, and multiple media, such as: audio, image, and video, which are means that allowed a large number of people to receive education easily, and with less time and effort. (Dadu', 2016.)

However, due to the conditions that the entire world is experiencing at the present time represented by the spread of the Corona virus, educational institutions suddenly found themselves forced to switch to distance learning to ensure the continuity of the teaching and learning process, and to use the Internet, smart phones and computers to communicate remotely with students (Yulia, 2020).

Public schools in Palestine suddenly found themselves forced to switch to e-learning, and to use means of communication that were not familiar before, and the English language teachers in public schools started to communicate with their students in different ways, but there were doubts about the effectiveness of e-learning among public school students, and some problems appeared in the application of e-learning, including the weak employment of some e-learning software because Palestinian schools did not follow e-learning or distance learning before. In addition to the weak infrastructure of e-learning, which requires the adoption of specific software and the provision of internet networks, smart phones and computers for each student. Therefore, there is an urgent need to know and evaluate the effectiveness of e-learning, the extent to which it achieves the objectives of education, its ability to meet the needs of students, and the creation of an interactive environment that dispenses with face- to- face learning.

Study questions:

The study seeks to answer the following question:

What is the effectiveness of e-learning in light of the spread of the Corona virus from the point of view of teachers in public schools in Palestine?

From this main question, the following sub- questions emerge:

1- What is the level of continuity of the e-learning process in public schools in Palestine?

2- What are the obstacles to the use of e-learning in public schools in Palestine?

3- What is the level of interaction of English language teachers in public schools with e-learning in public schools in Palestine?

4- What is the level of students' interaction with e-learning in public schools in Palestine from the point of view of English language teachers in public schools?

Objectives of the study:

This study aims to reveal the effectiveness of e-learning in light of the spread of the Corona virus from the point of view of English language teachers in public schools in Palestine.

It also aims to measure the level of continuity of the e-learning process, reveal the level of obstacles to the use of e-learning, and the level of interaction of students and English language teachers in public schools with e-learning in public schools in Palestine.

The importance of the study:

The importance of this study can be summarized as follows:

Theoretical importance: The theoretical literature contained in this study can add new knowledge to researchers, and may provide the Arabic library with a new theoretical framework on e-learning in light of emergency situations. Previous studies translated in this study may benefit those interested in distance learning and the results of its global application.

Practical importance: The results of this study benefit public schools in Palestine and higher education institutions in improving the performance of the e-learning system, developing human cadres, material capabilities, and trends in selecting the educational patterns used and setting future plans for e-learning as an alternative to face- to- face learning. The study tool can also be used in measuring the effectiveness of the e-learning system in universities, and the research derives its importance because it is contemporary with a realistic phenomenon, which is the spread of the Corona virus, and the results of this study can be used in similar phenomena such as wars and crises.

Study Terminology:

- E-learning: An interactive system linked to the educational learning process. This system relies on the existence of a digital electronic environment that presents the student with courses and activities through electronic networks and smart devices (Berg, Simonson, 2018)

  The researcher defines it as the planned and purposeful process in which public school students in Palestine interact with English language teachers in public schools to achieve specific goals and outcomes through the use of interactive educational software, electronic networks and smart devices to ensure physical distancing during the period of the spread of the Corona virus.

- Corona virus (COVID-19): It is a family of viruses that may cause illness in animals and humans, and causes 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 rapid spread (WHO, 2019).

- Efficiency: working to achieve the highest levels of achievement and achieve the best results at the lowest costs Al- Kilani, (2005).

  The researcher knows the level of achieving educational outcomes during interaction between public school students in Palestine with English language teachers in public schools using interactive educational software, electronic networks and smart devices compared to the time required for face- to- face learning.

Study limits:

The results of this study can be generalized in light of the following limitations:

- **Objective limits**: This study dealt with the effectiveness of distance e-learning in light of the spread of the Corona virus at public schools, and used a questionnaire characterized by honesty and a stability coefficient (0.804), and the generalization of the results of this study depends on the seriousness of the response of the study sample to the paragraphs of the questionnaire.

- **Human limits**: This study was applied to (50) English language teachers in public schools

- **Spatial boundaries** :This study was applied in the branches of public schools in Palestine in the city of Tulkarm, the city of Hebron and the city of Ramallah.

- **Time limits** :This study was applied in the second semester of the academic year) 2020- 2021).

2- Theoretical framework.

For a short period of time, it was believed that the Internet was only a place for chatting, reading newspapers, shopping and viewing forums. Then, the use of the Internet and in educational institutions began, and knowledge was exchanged through the means of communication, and there were websites for schools and universities on the Internet, and the view of the Internet, smartphones and computers

changed. It has come to be seen as an essential educational tool, as the number of schools and universities connected to the Internet is increasing day by day. Google search results revealed that there are more than (400) universities and electronic colleges (Online University), and that more than (35,000) teachers and (250,000) students use e-learning before the Corona pandemic, and that there are university portals and that there are more than (1700) online university course in the United States only (Koumi, 2006).

The increase in the number of teachers and students who use computers, the Internet and smart phones in the learning process is due to the characteristics of e-learning and its positive effects. The study of Edwards and Fritz (1997) revealed that e-learning is interesting and interesting and achieves results. Effectively, it improves students' acquisition of concepts.

E-learning is defined as the education provided on the Internet, through the use of modern electronic technologies to access everything related to educational materials outside the boundaries of the traditional educational classroom (Koumi, 2006).

Basilaia and Kvavadze (2020) see that 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 at the appropriate time and time.

The researcher believes that e-learning is the process of replacing distance learning using electronic means of communication with face- to- face interaction in the classroom to achieve the planned educational outcomes.

Among the most important common terms used to express and describe it are distance education and computerized e-learning, in the form of interactive meetings via the Internet, in which students can interact with teachers, and receive tasks and duties from them at the same time (eLearning NC, 2018)

There are many benefits and features offered by e-learning, which make it superior to traditional education methods, as follows:

- Reducing costs, as it saves the costs of establishing new classes to conduct educational courses and workshops, and provides electricity, water and other materials used in the school, in addition to the fact that there is no need to go to schools and educational centers, and this would reduce transportation costs.

- Available for all individuals and age groups, whereby all individuals, regardless of their age, can benefit from the meetings, meetings and courses offered on the Internet, and acquire new skills and experiences far from the restrictions of traditional schools.

Flexibility, it is not tied to a specific time, so individuals can learn at any time they want according to the time convenient for them.

- Investing time and increasing learning, as useless interactions between students are reduced by reducing chatting and excessive questions that waste time, so the amount of what the student learns increases without any disruptions or obstacles.

Making education more orderly and impartial, as well as evaluating tests in an impartial and fair manner, and meticulously tracking each student's achievements.

- Environmentally friendly, as there is no use of papers and pens that may harm the environment when disposed of (Ferriman, 2014).

In addition, e-learning will be the dominant mode of education in the future. The current generation is characterized by its attachment to smart phone devices and the use of various applications, so the integration of technology in the educational process has become a global trend, and interaction with educational activities through mobile devices has become a catalyst for learning rather than being satisfied with the traditional study (Yulia, 2020).

Despite the many benefits of e-learning, it has some disadvantages as follows:

It is highly dependent on technology. Although e-learning is available to all individuals, many of them may not have smart phones, computers or a network.

Low level of motivation and organization, because e-learning is subjective, some people may find it difficult to motivate themselves to learn, resist playing, and organize the learning process.

- Isolation and loneliness, which arises due to the interaction of students with computers and smart phones rather than their direct communication and interaction with each other (Hetsevich, 2017).

Yulia, 2020 (Basilaia, Kvavadze, 2020; Yulia, 2020) believes that e-learning can be effective if teachers do the following:

1- Organizing educational content: teachers may resort to adopting an educational design to prepare an educational material that effectively achieves the goals, studying the educational needs of students, defining the appropriate goals and means to achieve them, and choosing tools for measurement and feedback.

2- Choosing the appropriate educational aids: In e-learning, the choice of educational aids is determined by choosing the appropriate educational software for communication, and the effective and widespread means of communication among students.

3- Determining measurement tools: Because e-learning suffers from a weakness in the reliability of assessment and the difficulty of controlling the implementation of tests, and the monitoring process is impossible to avoid cheating, teachers have resorted to formative assessment during interaction with students, or using real assessment.

4- Individualizing learning and meeting different learning needs and styles: by taking into account the diversity of learning styles among students, their computer competencies, their circumstances in terms of study times and the different quality of their networks and devices.

5- Professional growth: the teacher constantly improves his electronic competencies, and improves the level of readiness to use modern technology in the education process.

Before March of the year 2020, no English language teachers in public schools thought that e-learning would be the only gateway to reach students and interact with them to achieve educational goals, as the Corona crisis resulted in the launch of courses for teachers in the field of e-learning and its various means, to maintain the continuity of education. Learning and achieving the requirements of the second semester of the academic year 2020, and achieving physical distance between students in order to preserve their safety from infection with the Corona virus 19.

The new "Covid 19" virus falls within a new strain of the family of "Corona" viruses that have not previously been discovered in humans, and it is a viral disease that affects the respiratory system of humans at different ages, and the people most affected and vulnerable to it are the elderly and those with chronic diseases, and it may spread among people by mixing with infected people, and flying droplets during coughing, sneezing, and touching the tools of the injured or the victim himself, and its prominent symptoms are the following: fever, high temperature, cough, shortness of breath and general fatigue, vomiting and diarrhea, runny nose, in addition to sore throat. The Red Crescent (2020) states that among the preventive measures and methods of protection that help reduce the risk of infection with this virus are the following:

- Avoid close contact with anyone who has symptoms of the common cold or flu, and avoid touching the eyes, nose or mouth.

- Clean hands with soap and water frequently, or use an alcohol- based hand sanitizer when leaving the house, or touching public facilities and others.

- Use a tissue when coughing and sneezing and dispose of it immediately after use, or use the upper part of your sleeve or your bent arm in the absence of a tissue.

- Sterilization of all necessities that are purchased before entering the house, and continuous disinfection of surfaces in the home and office.

Compliance with the instructions of the Ministry of Health in Palestine has led to the prevention of all forms of physical closeness between citizens, in markets, mosques, clubs, and public schools in Palestine from one of the institutions of higher education in the State of Palestine, and they are the first and only governmental public schools in the West Bank affiliated with the Ministry of Education and Higher Education These public schools began their educational journey in the year 1930 AD in the form of an agricultural school to serve the Palestinian people, and with time it developed into a university college under the responsibility of the Palestinian National Authority, and it offers programs at different levels (diploma, bachelor's) in many disciplines. Government schools also seek to graduate qualified and technical students, who are able to contribute to creating a bright future for their country, by enriching them with scientific and practical experiences and knowledge, in addition to their endeavor to develop technical and technological education academically, technically, and administratively, and to develop their links and relations with similar educational institutions on the local, regional, and international levels.

Public schools include a distinguished and diverse elite of English language teachers in public schools who are committed to improving the education process, and producing innovative scientific and technical research and studies (public schools website in Palestine).

Public schools in Palestine have adhered to the instructions for physical distancing, stopped face-to-face education, and adopted e-learning in the continuity of the second semester of the 2020 academic year.

Previous studies:

Previous studies that dealt with the subject of the study were reviewed, and they were arranged from oldest to newest as follows:

(Aljaser, 2019) study which aimed to identify the effectiveness of the e-learning environment in developing the academic achievement, 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, 2019) that aimed to model the interaction of e-learning, learner satisfaction and continuous learning intentions in Ugandan higher education institutions. It consists of 28 paragraphs, 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.

In a study conducted by (Draissi, Yong, 2020) aimed at knowing the response plan to the outbreak of the disease (COVID-19) and the implementation of distance education in Moroccan universities, the researchers examined various documents consisting of news articles for daily newspapers, reports and notices from Universities website, the study used a content analysis approach, and the results of the study indicated that what is worrying is that the COVID-19 pandemic challenges universities to continue to overcome the difficulties facing both students and professors, invest in scientific research and their ongoing efforts to discover a vaccine. For the student, additional duties were assigned to the professors to maintain their business momentum from home, and to provide free access to a few paid e-learning platforms or databases.

And (Sahu, 2020) conducted a study aimed at knowing the impact of university closures due to the Corona virus (COVID-19) on education and mental health of students and teachers in public schools, the new coronavirus (COVID-19) originated in Wuhan, China and has spread rapidly around the world, Thus, a large number of universities have postponed or canceled all university activities, and universities

have taken extensive measures to protect all students and staff from the highly contagious disease, teachers in public schools have moved to the electronic teaching system, and research highlights the potential impact of the spread of COVID-19 on education and mental health, for students, the results of the study showed that universities should implement laws to slow the spread of the virus, students and staff should receive regular information through email, the health and safety of students and staff should be a top priority, and counseling services should be available to support students' mental health, and also Authorities have a responsibility to ensure food and housing for international students, and teachers in public schools have to pay close attention to technology to make students' learning experiences rich and effective.

And (Yulia, 2020) conducted a descriptive study aimed at clarifying the ways in which the Corona pandemic affected the reshaping of education in Indonesia, where it explained the types and learning strategies that teachers use in the world via the Internet due to the closure of universities to limit the spread of the epidemic Corona virus. Learning through the Internet, where the study concluded that there is a high speed of the impact of the Corona epidemic on the education system, as the traditional method of education has declined to spread instead of learning through the Internet because it supports learning from home and thus reduces the mixing of individuals with each other, and reduces the spread of the virus, and the study proved the importance of using various strategies to smoothly and improve online education.

And in a study conducted by (Basilaia, Kvavadze, 2020) that aimed to study the experience of moving from school education to online learning during the spread of the Corona virus epidemic in Georgia, where it was based on the statistics of the first week of the teaching process in a private school and its experience in moving from face- to- face education Face to e-learning during the Corona pandemic, where she discussed the results of online education and the EduPage and Gsuite platforms were used in the educational process, and based on the statistics of the first week of the online teaching process, the researchers concluded that the transition between traditional education and online education was successful, and it can be used by the system and skills acquired by teachers, students and school management in the post- epidemic period in different cases such as those with special needs who need extra hours, or by increasing the effectiveness of group teaching or increasing student independence and acquiring new skills.

And (Hodges, Moore, Lockee, Trust, BondH, 2020) conducted a study aimed at revealing the difference between distance teaching in emergency situations and online education, where the researchers designed a model consisting of evaluation conditions and a set of questions through which teaching can be evaluated via the Internet. After in emergency situations, and measuring the extent of the success of distance learning experiences via the Internet, the study concluded that online learning experiences differ from learning in emergencies in terms of the quality of planning, and in terms of courses

offered online in response to a crisis or disaster, and colleges and universities that operate On preserving education during the COVID-19 pandemic.

Soro, Trevisan, Drago, Mellia, (2020) conducted a study aimed at analyzing the impact of the application of closures on campus traffic and e-learning during the COVID-19 pandemic, and how the epidemic changed campus traffic, and the collaboration in the use of private platforms by remote learning, adopting remote teaching as well as looking for unwanted changes in (harmful) traffic. The results, after analyzing the changes studied, indicated that the Internet was able to deal with sudden need, and that platforms for remote work, e- education and online cooperation are a viable solution to deal with the policy of social distancing during the COVID-19 pandemic, and the ease of controlling traffic in the campus. university when accrediting e-learning.

Commenting on previous studies:

Examining previous studies shows that they investigated the effectiveness of the e-learning environment and its effectiveness in developing academic achievement, modeling the interaction of e-learning, learner's satisfaction during the period of the Corona epidemic, in terms of developing a response plan to the outbreak of COVID-19: Implementation of distance education in Moroccan universities, the impact of the closure of universities due to the Coronavirus (COVID-19) on education and the mental health of students and English language teachers in public schools, and the ways in which the Corona pandemic affects the reshaping of education in Indonesia. Examining studies also shows the experience of moving from school education to online learning during the spread of the Corona virus epidemic in Georgia, and campus traffic and e-learning during the COVID-19 pandemic. They did not choose any study that it appointed from university teachers. Previous studies relied on the descriptive analytical approach. Previous studies also applied interviews and observational tools to collect data.

This study is similar to the studies in its talk about e-learning and its reliance on the descriptive and analytical approach, but this study is distinguished from previous studies in dealing with the effectiveness of e-learning in light of the spread of the Corona virus from the point of view of teachers in public schools in Palestine.

3- Method and procedure.

Study Approach:

In its procedures, this study relied on the descriptive analytical approach, which depends on collecting data from the study sample of English language teachers in public schools using the questionnaire prepared for the purposes of this study, and studying and analyzing the responses of teachers in public schools.

A sample:

This study was applied to a sample consisting of (50) teachers who are teaching English in public schools in government schools in Palestine, where the study sample was selected randomly from the study population consisting of (330) teaching staff bite in government schools in Palestine in the second quarter of the year2020- 2021From various disciplines and from all branches of Palestine Technical University: Hebron branch, Ramallah branch, and Tulkarm main branch, where they were contacted through social media.

Study tool:

To achieve the objectives of this study, the researcher built a questionnaire consisting of (40) items, and it was directed to English language teachers in public schools in Palestine who practiced e-learning during the crisis of the spread of the Corona virus, and the questionnaire was developed by looking at studies that dealt with e-learning as the study (Yulia and Basilaia, Kvavadze, 2020). The researcher also benefited from the standards used in the previous studies, and she chose some paragraphs and reformulated them, and formulated some paragraphs in the light of the theoretical literature formed by her about distance learning, and the questionnaire in its final form consisted of (40) A paragraph corresponding to a five- fold scale (strongly agree = 5, agree = 4, neutral = 3, disagree = 2, strongly disagree = 1) and the questionnaire items were divided into four areas:

- E-learning Continuity: This field includes (14) paragraphs.
- Obstacles to e-learning: This field included (10) paragraphs.
- Teachers' interaction with e-learning: This field included (10) paragraphs.
- Students' interaction with e-learning: This field included (6) paragraphs.

The validity of the study tool:

The questionnaire was presented in its initial form to seven arbitrators with expertise and competence in the field of scientific research and teaching in both An- Najah National University and Arab American public schools, with the aim of arbitrating the paragraphs of the questionnaire, and knowing the extent of its clarity and comprehensiveness of all aspects of e-learning in light of the spread of the Corona virus from the point of view of the English language teachers in public schools in Palestine, as well as the appropriateness of the formulation of the paragraphs, and the expression of opinion on the method of correcting the questionnaire.

Stability of the study instrument:

The questionnaire was applied electronically to an exploratory sample other than the study sample consisting of (20) teaching staff members in public schools in Palestine. The Cronbach's Alpha test

was used to test the stability of the questionnaire, and the stability rate of the questionnaire was (0.804). The values of the reliability coefficients for the resolution axes ranged between (0.895) and (0.731).

statistical analysis:

Data were collected using the study tool, a questionnaire, and then unloaded into an Excel file. They were organized and entered into the statistical program (SPSS) to analyze the study data after coding the answers. Descriptive statistics were used to calculate the arithmetic means and standard deviations.

The five-level grading classes were also converted to three- tiered grading as follows:

$$(5- 1) = 4$$

$$4/3 = 1.33$$

This value is used to determine the length of the staging period as follows:

1- 2.33 weak

2.34—3.67 Medium

3.68—5.00 large

4- Results.

The results were presented and analyzed in the light of the study questions sequence as follows:

To analyze this questionnaire, the arithmetic means and standard deviations of its four domains were calculated, and the results were as follows:

Table (1) Arithmetic averages and standard deviations of the domains of the e-learning questionnaire

Rank	the field	SMA	standard deviation	Degree
1	Continuity of e-learning in light of the spread of Corona	2.55	0.90	medium
2	Students' interaction with e-learning in light of e-learning	2.47	0.82	medium
3	Teachers' interaction with e-learning in light of the Corona crisis	2.43	0.67	medium
4	E-learning Obstacles	2.35	0.34	medium
	The effectiveness of e-learning in light of the spread of the Corona virus from the point of view of teachers :public schools in Palestine	2.45	0.57	medium

Table (1) shows that the arithmetic mean of the effectiveness of e-learning in light of the spread of the Corona virus from the point of view of the teaching staff in public schools in Palestine reached (2.45) with a standard deviation of (0.57) with a medium degree, and that the field of "e-learning continuity in light of the spread Corona" had a mean (2.55) and a standard deviation (0.90) in a medium degree, followed by the field of "student interaction with e-learning" with a mean (2.47) and a standard deviation

(0.82) with a medium degree as well, while the field of "teachers interaction with e-learning" came in the Corona crisis shadow" with an arithmetic mean (2.43) and a standard deviation (0.67) at a medium degree, and finally, the field of "e-learning obstacles" came with an arithmetic mean (2.35) and a standard deviation (0.34).

The results of the first question: "What is the level of continuity of the e-learning process in public schools in Palestine?"

The researcher extracted the arithmetic means and standard deviations for the continuity of the e-learning process in public schools in Palestine as follows:

Table (2) Arithmetic averages and standard deviations of the items in the field of "e-learning continuity in light of the spread of Corona"

Rank	the field	SMA	standard deviation	Degree
1	Students were trained by government schools to use e-learning by giving them some qualifying courses during the pandemic	3.22	1.35	medium
2	The techniques used in e-learning are effective and cover all aspects of the curriculum	3.16	1.44	medium
3	There is a smooth transition from traditional education to e-learning in light of the Corona crisis	3.04	1.39	medium
4	I feel satisfied with using the e-learning system as an alternative to the face- to- face education system in light of the Corona crisis	2.83	1.44	medium
5	Sending and receiving educational materials remotely was without technical obstacles	2.70	1.55	medium
6	Governmental schools provide training indicative electronic courses that explain the mechanism of using the e-learning system for teachers during the Corona crisis	2.64	1.39	medium
7	Teachers have sufficient skills to design and produce effective online content	2.62	1.41	medium
8	The website design provided by the government schools for e-learning facilitates the presentation of the material in an interesting way	2.50	1.40	medium
9	The e-learning system provides direct communication between the members of the educational system (administration ،teacher ،student(	2.28	1.34	weak
10	Public schools provide appropriate technical support to facilitate the use of technology in the educational material	2.26	1.35	weak
11	E-learning technology effectively contributes to the continuity and success of the educational process in light of the Corona crisis	2.18	1.33	weak
12	Logistical support from public schools is available to follow up the educational process.	2.16	1.33	weak
13	A guide for using the site has been provided for the educational material	2.08	1.35	weak

Rank	the field	SMA	standard deviation	Degree
	for students.			
14	The administration of public schools is constantly evaluating the mechanism of distance teaching	2.08	1.24	weak

It is evident from Table (2) that the paragraphs of the field of "e-learning continuity in light of the spread of Corona" ranged from a weak degree to a medium degree, as the paragraph "students were trained by government schools to use electronic education by giving them some qualifying courses during the pandemic." In the first place with an arithmetic mean of (3.22) and a standard deviation of (1.35) in a medium degree, the paragraph "government schools administration conducts a continuous evaluation of the mechanism of distance teaching" and the paragraph "a guide for using the site for the educational material for students" came in the last rank with an arithmetic average of (2.08) and with a standard deviation of (1.24) (1.35), respectively, with a medium degree.

The results of the second question: "What are the obstacles to the use of e-learning in public schools in Palestine?"

The researcher extracted the arithmetic averages and standard deviations of the domain of obstacle to the use of e-learning in public schools in Palestine as follows:

Table (3) Arithmetic averages and standard deviations of the paragraphs of the second field "E-learning Obstacles"

Rank	the field	SMA	standard deviation	Degree
1	The e-learning system is compatible with the type of subjects, both theoretical and practical	3.90	0.93	big
2	All teachers have sufficient and appropriate experience and skills to use computers and the Internet	3.30	1.09	medium
3	give any lecture without any I can The speed of the Internet is suitable and interruption	3.20	1.47	medium
4	Training courses were held and teachers prepared before the Corona crisis for the mechanism of using e-learning	2.62	1.48	medium
5	A power outage occurs while you are in the learning process	2.42	1.34	medium
6	There is difficulty in direct communication between teachers and students (where ideas and opinions can be exchanged through personal (confrontation	1.74	1.04	weak
7	Teachers have problems preparing video lectures	1.70	0.95	weak
8	for teachers in following up on the large numbers of There is a difficulty students through the available e-learning tools	1.60	0.98	weak
9	The student faces problems and obstacles when studying the material	1.54	0.83	weak

Rank	the field	SMA	standard deviation	Degree
	electronically			
10	The interaction of students with e-learning and lectures was affected by difficult or special living conditions	1.52	0.78	weak

Table (3) shows that the paragraphs of the field of "e-learning obstacles" ranged between a weak and a large degree. The paragraph "The e-learning system is compatible with the type of materials on both the theoretical and practical sides" came in the first place with an arithmetic average of (3.90) and a standard deviation of (0.93) to a large degree, and the paragraph "the interaction of students with e-learning and lectures was affected by difficult or special living conditions" came in the last place with a mean of (1.52) and a standard deviation of (0.78) in a medium degree.

The results of the third question: "What is the level of English language teachers' interaction with e-learning in public schools in Palestine?"

The researcher extracted the arithmetic averages and standard deviations of the field of interaction of English language teachers with e-learning in public schools in Palestine as follows:

Table (4) Arithmetic averages and standard deviations of the paragraphs of the third field "The interaction of English language teachers with e-learning in light of the Corona crisis"

Rank	the field	SMA	standard deviation	Degree
1	I think that remote tests are an appropriate way to assess students' achievement	3.74	1.12	big
2	E-learning is more time efficient than traditional education	3.42	1.32	medium
3	There is high credibility in evaluating students through the e-learning system	3.20	1.41	medium
4	The teacher in public schools in Palestine is satisfied with the e-learning system	2.92	1.44	medium
5	The evaluation methods used are appropriate and done in a variety of ways	2.60	1.48	medium
6	The student is continuously evaluated during the distance education process	1.90	1.28	weak
7	The educational material is attached to the students easily and conveniently	1.78	1.21	weak
8	The teacher answers easily the students' inquiries about the attached scientific material	1.76	1.13	weak
9	You are committed to the e-learning system based on the public schools plan	1.48	0.64	weak
10	The educational content includes exercises and assignments to help you learn	1.46	0.93	weak

It is evident from Table (4) that the paragraphs of the field of "English language teachers' interaction with e-learning in light of the spread of Corona" ranged between a weak and a large degree. (3.74) and a standard deviation of (1.12) to a large degree, and the paragraph "the educational content includes exercises and assignments that help learning" came in the last place with an arithmetic mean of (1.46) and a standard deviation of (0.93) with a weak degree.

The results of the fourth question: "What is the level of students' interaction with e-learning in public schools in Palestine from the viewpoint of English language teachers?"

The researcher extracted the arithmetic averages and standard deviations of the students' interaction with e-learning from the point of view of the teaching staff in public schools in Palestine as follows:

Table (5) Arithmetic averages and standard deviations of the items in the field of "students' interaction with e-learning in light of e-learning"

Rank	the field	SMA	standard deviation	Degree
3	I am satisfied with the extent to which students benefit from e-learning	3.32	1.30	medium
1	Students interact with the e-learning system on an ongoing basis	3.20	1.46	medium
6	The e-learning method helps in understanding the scientific material clearly and smoothly	2.92	1.35	medium
4	Viewing the material electronically provides the student with additional skills	2.26	1.45	weak
2	The student can ask any questions and inquiries through e-learning	1.76	1.15	weak
5	The e-learning system allows the student to access the educational material at any time	1.36	0.75	weak

Table (5) shows that the paragraphs of the field of "students' interaction with e-learning in light of the spread of Corona" ranged between a weak and a medium degree. The paragraph "I feel satisfied with the extent to which students benefit from e-learning" came in the first place with an average of 3.32) with a standard deviation of (1.30) at a medium degree, and the paragraph "The e-learning system allows the student to access the educational material at any time" came in the last rank with an arithmetic mean of (1.36) and a standard deviation of (0.75) with a weak degree.

Discussing findings and recommendations:

The results were discussed in light of the study questions sequence as follows:

The results revealed that the arithmetic mean of the effectiveness of e-learning in light of the spread of the Corona virus from the point of view of English language teachers in public schools in Palestine reached (2.45) with a standard deviation of (0.57) with a medium degree, and that all fields came to a medium degree.

These results are attributed to the fact that public schools in Palestine are among the universities that adopt face- to- face learning, and they did not plan to adopt e-learning, so they suddenly switched to e-learning, and this reduces their experiences in this field, and makes this type of education a novelty that needs to practice to improve his level.

This result is also due to the fact that e-learning requires the existence of an infrastructure of computers, phones and software that is tested and approved in education, and the purchase of special programs for government schools to ensure the participation of the largest number of students in e-learning, and because e-learning was suddenly imposed on public schools as a result of the Corona pandemic, it was English language teachers communicate with students within the available capabilities, which are weak and not accounted for.

Also, e-learning requires concerted governmental and private efforts. Public schools in Palestine faced government decisions like other Arab universities without providing support for the continuation of the education process. In addition, the teaching staff in public schools in Palestine did not receive sufficient training to lead the e-learning process in Palestine crises.

The results of this question are similar to the results of the study of (Draissi, Yong, 2020), which revealed that the response to the outbreak of (COVID-19) and the implementation of distance education in Moroccan universities was facing some difficulties and challenges for both the teacher and the student. The study (Yulia, 2020) revealed that the Corona pandemic affected the reshaping of education in Indonesia, where the traditional method of education declined, to spread instead of learning through the Internet because it supports learning from home and thus reduces the mixing of individuals with each other, and reduces the spread of the virus, The study (Basilaia, Kvavadze, 2020), which revealed that the experience of moving from school education to online learning during the spread of the Corona virus epidemic in Georgia was successful, and the system and skills acquired by teachers, students and school management in the post- epidemic period can be benefited from in different cases such as people with special needs who need extra hours, or by increasing the effectiveness of group teaching or increasing student independence and acquiring new skills.

The results of the first question: What is the level of continuity of the e-learning process in public schools in Palestine?

The results of this question indicated that the field of e-learning continuity in light of the spread of Corona in public schools in Palestine was medium.

This result is due to the fact that public schools in Palestine were surprised by a government decision to close public schools and prevent face- to- face teaching, without prior training and professional development for English language teachers on the use of e-learning in the teaching and learning process, and the students themselves were not trained in e-learning.

This result may be attributed to government schools not adopting prior and reliable software for use in e-learning, which made some English language teachers communicate with students through social media, which are not specialized programs for distance education, and some students and teachers do not trust the results of Online exams, which made them not take e-learning seriously.

The researcher may attribute this result to the fact that the government decisions came very quickly, which made government schools lose their flexibility in dealing with the Corona pandemic, as the results of the second semester continued in fog for a long time, and the English language teachers or students did not know the fate of this chapter, whether it would be repeated or canceled or E-learning will be counted as formal learning and its results will be approved, which are things that made some students stop pursuing e-learning, then return to learning and then stop.

The results of the second question: What are the obstacles to the use of e-learning in public schools in Palestine?

The results of this question indicated that there are large, medium and weak obstacles that hinder the use of e-learning in public schools in Palestine.

This result is attributed to the lack of pre- approved educational software in public schools, which made students progress in theoretical aspects, while they found it difficult to learn from distance in practical aspects.

This result is also attributed to the fact that the educational staff in public schools in Palestine is trained in face- to- face education, while e-learning requires distance communication and computer competencies, which are competencies that English language teachers in public schools in Palestine have not trained, which created difficulties in understanding Messages and instructions from the first time, and some English language teachers are not trained in dealing with computers and smart phones.

This result is due to the fact that the internet speed is not suitable in some areas, which has created a discrepancy in the reception and exchange of information, in addition to the occurrence of power outages in Palestine during the Corona crisis.

This result is due to the fact that e-learning is an educational novelty imposed by the Corona pandemic, and every newcomer faces difficulty at the beginning, and then the experience comes later to remove many obstacles and adapt e-learning to suit the conditions of the learning environment in Palestine.

The results of this question are similar to the results of the study of (Draissi, Yong, 2020), which revealed that the response to the outbreak of the disease (COVID-19) and the implementation of distance education in Moroccan universities was facing some difficulties and challenges for both the teacher and the student.

The results of the third question: What is the level of interaction of English language teachers with e-learning in public schools in Palestine?

The results of this question revealed that the level of English language teachers' interaction with e-learning in light of the spread of Corona came to a moderate degree, and that the interaction of English language teachers with e-learning in public schools in Palestine was moderate and weak in many activities.

This result is attributed to the weak interaction of English language teachers in public schools in Palestine with evaluation activities, as English language teachers do not have specialized programs to control students' implementation of tests.

Moreover, the interaction of English language teachers in public schools in Palestine is governed by the continuous availability of the Internet service, which is an intermittent service that causes English language teachers to stop interacting with students in case the service stops, or limit their ability to respond easily to students' inquiries about the educational material. The ability of English language teachers in public schools in Palestine to attach educational materials is limited due to the low levels of file uploading in Internet services.

This result is also attributed to the fact that the work on e-learning by English language teachers in public schools in Palestine came suddenly, which made them send focused and deep information, avoiding details, exercises and assignments, which made the educational materials sometimes dry and boring for students.

The results of this question are similar to the results of the study of (Basilaia, Kvavadze, 2020), which revealed that the experience of moving from school education to online learning during the spread of the Corona virus epidemic in Georgia was successful, and the system and skills acquired by teachers, students and school management can be benefited from. In the post- epidemic period in different cases, such as those with special needs who need extra hours, or by increasing the effectiveness of group teaching or increasing student independence and acquiring new skills.

The results of the fourth question: What is the level of students' interaction with e-learning in public schools in Palestine from the point of view of the English language teachers?

The results of this question indicated that the field of students' interaction with e-learning in light of the spread of Corona came to a medium degree, and that their interaction ranged between average and weak in some e-learning activities.

This result is due to the fact that public school students in Palestine were not accustomed to e-learning, as the Corona pandemic imposed on them e-learning suddenly and without prior training, and they tried to communicate with English language teachers, who are also not trained in e-learning, which made the interaction between them and education E- mail is moderate and weak in some activities.

In addition, public schools in Palestine do not have software and computerized lessons prepared in advance to be used in emergency situations, which made the English language teachers send the students lessons that fulfill part of the courses, and sometimes lessons that do not include interactive activities, which made the students only recipients, reading and answering questions; Which lost them interaction with e-learning.

The English language teachers' reliance on sending PDF and Word lessons and asking the student to read the educational content reduces the students' ability to ask any questions and inquiries through e-learning.

In addition, English language teachers in public schools in Palestine need sufficient training to choose the appropriate software that ensures students' interaction with educational content, and access to it at any time.

Conclusions:

1. During the closure caused by Covid19, the educational staff in public schools in Palestine is trained in face- to- face education and not trained enough to use e-learning in the teaching and learning process, and the students themselves were not trained in e-learning.

2. There was a lack of pre- approved educational software in public schools, suitable internet speed, while e-learning requires distance communication and computer competencies.

3. Low levels of file uploading in Internet services made it difficult to attach educational materials, exercises and assignments.

4. Public school students in Palestine were not accustomed to e-learning, as the Corona pandemic imposed on them e-learning suddenly and without prior training.

Recommendations.

1. Investing in the positive directives for students and English language teachers towards e-learning, developing plans and programs to benefit from these directives, and giving training courses in the field of e-learning to both students and English language teachers.

2. Training and encouraging teachers to communicate with students through electronic pages and e-mail, given that many students have Internet service at home.

3. Emphasize the need for public schools to pay attention to the introduction of e-learning in university education, and to spread e- culture among students to achieve the greatest interaction with this type of education.

4. Providing an appropriate educational structure for the application of e-learning in government schools and removing all human, material and technical obstacles that prevent its spread in the educational system in various stages and fields.

5. Public schools should conduct more studies and research to find out the effectiveness of e-learning in the presence of harsh conditions and hold conferences and seminars for the development and advancement of e-learning.

6. The necessity for government schools to offer materials that teach students the skills and techniques of e-learning in order to facilitate the process of interaction and benefit by students with educational materials presented electronically.

Sources and references.

- Afouneh S, Salha S, Khlaif ZN. (2020) Designing Quality E-learning Environments for Emergency Remote Teaching in Coronavirus Crisis. Interdiscip J Virtual Learn Med Sci.11(2):1- 3

- Al- Kilani, Majid 2005) .AD .(Education and renewal .Bassir website.https://cutt.us/qjmvT an interview with the head of human resources in public schools in Palestine, Tulkarm branch.

- Aljaser, AM (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.

- Bashir, K. (2019). Modeling E-learning interaction, learner satisfaction and continuance learning Intention in Ugandan higher learning institutions. International Journal of Education and Development using Information and Communication Technology.

- Basilaia, G., &Kvadze, 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.

- Berg, G., Simonson, M. (2018). Distance learning. Britannica. https://www.britannica.com/topic/distance-learning

- Draissi, the Z Yong, Do, the Z (2020). COVID-19 Outbreak Response Plan: Implementing Distance Education in Moroccan Universities. School of Education, Shaanxi Normal University. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3586783

- eLEARNINGNC. http://www.elearningnc.gov/about_elearning/what_is_elearning/

- Favale, T., Soro,, F., Trevisan, M, Drago, I. The, Mellia, M (2020). Campus traffic and e-learning during COVID-19 pandemic. Computer Networks. 176.

- Ferreman. J. (2014). 10 Benefits of Using Elearning. LearnDash. https://www.learndash.com/10-benefits- of- using- elearning/

- Hetsevich. I. (2017). Advantages and Disadvantages of E-learning Technologies for Students. joomlals. https://www.joomlalms.com/blog/guest- posts/elearning- advantages-disadvantages.html

- Hodges, C., Moore, S Lockee, B., Trust, T., A Bond, A. The (2020). The Difference Between Emergency Remote Teaching and Online Learning https://er.educause.edu/articles/2020/3/the- difference- between- emergency- remote- teaching- and- online-learning. Retrieved, 5/27/2020.

- Koumi, J (2006). Designing Educational Video and Multimedia for Open and Distance Learning. Routledge, England.

- Palestine Technical University- Kadoorie website .(D.T) .Vision and mission of public schools.https://ptuk.edu.ps/vision- mission- about- ptuk/

- Palestinian News and Information Agency (Wafa) .(D.T) .About the Palestinian universities (Palestine Technical University- Kadoorie.(http://info.wafa.ps/ar_page.aspx?id=3711

- Palestinian Red Crescent Society website 2020) .AD .(What is the new "Corona" virus؟ https://www.palestinercs.org/index.php?page=post&pid=25732&parentid=23703&catid=10 &langid=2

- Sahu, P. (2020). Closure of Universities Due to Coronavirus Disease (COVID-19): Impact on Education and Mental Health of Students and Academic Staff. Medical Education and Simulation, Center for Medical Sciences Education, The University of the West Indies, St. Augustine, TTO.

- World Health Organization website .(2019AD) .Corona Virus (COVID-19). https://www.who.int/en/emergencies/diseases/novel- coronavirus- 2019

- Yulia, H. (2020). Online Learning to Prevent the Spread of Pandemic Corona Virus in Indonesia. ETERNAL (English Teaching Journal). 11 (1.)