

# Palestinian University Students' Perceptions of Distance Education in Light of the Coronavirus Crisis

Rima Wajih Hamed Daraghme<sup>1</sup>

<sup>1</sup> Palestine Technical University, Kadoorie, Palestine

Correspondence: Rima Wajih Hamed Daraghme, Palestine Technical University, Kadoorie, Palestine.

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## Abstract

A study aimed to identify Palestinian university students' perceptions of using distance education in light of the Coronavirus crisis from the students' point of view, depending on the differences between gender or the university in which they study. The descriptive approach was used for the current research. The 25-paragraph questionnaire was distributed electronically through social media sites due to the closure of universities. The sample of the study was formed from (73) distributed among (16) males and (57) females and distributed to universities came (42) students of Palestine Technical University Khudouri, and (19) students of Al-Najah University and (12) students of Arab American University.

The study found that Distance Education was a problem for students because of the constant need for Internet service, while Distance Education helped them with multiple sources of information. Moreover, Distance Education did not make it easier to understand teaching subjects better, nor did it make education popular for students. They preferred education that was more remote than Distance Education. The study also did not find any differences in the perceptions of Palestinian university students to use distance education in light of the Coronavirus crisis due to the variable of gender or university.

The most important recommendations are providing an appropriate educational structure for implementing e-learning in Palestinian universities and removing all human, material and technical obstacles that prevent its spread in the educational system in various stages and fields. And that there is a need for Palestinian universities to offer materials that provide students with e-learning skills and techniques to facilitate the process of interaction and benefit by students with Educational materials provided electronically.

**Keywords:** perceptions, distance education, Coronavirus crisis

## 1. Introduction

In light of the tremendous technological changes and developments that the world is witnessing and making the world a small village, and with the growth of knowledge and the diversity of its sources, it has become imperative to consider these technological developments and scientific revolutions. As well as keeping pace with these developments has become crucial in many areas, including education. It has become a requirement to resort to technology in education in light of the Corona pandemic, where it became impossible to attend universities and schools, which imposed the Distance Education system. (Amasha, 2011) And Distance Education using e-learning is considered a response to the requirements of technological progress, especially since students of the current decade are interested in technology and use it extensively through social media. That made it easier for educational institutions to use blended education (Al-Yousifi, 2015) and (Amira et al., 2019) believe that Distance Education on modern technology means such as smart boards, smartphones, and the use of the Internet facilitates direct communication between the teacher and the learner, especially that the means of communication. It is available with the learner wherever he is and all the time. Learners can be provided with educational videos that they can watch later according to their free time, in addition to radio broadcasts, educational channels or correspondence via the Internet, Facebook, YouTube and e-mail. That contrasts with regular education, which determines the time and place between the teacher and the learner.

After the spread of Coronavirus, which has become a threat to human lives, specifically in population centers, Palestinian universities decided to adopt Distance Education as an alternative to face-to-face education to preserve the continuity of the educational process. So many means and programs appeared to be used to communicate

between the teacher and the learner, such as the Zoom program and other electronic means (Ministry of Palestinian Higher Education, 2020).

### *1.1 Problem Statement*

Coronavirus pandemic spread globally and impacted our lives in all fields, including education. Palestine was not immune to this impact. Palestinian universities saw the need to search for alternatives to continue the educational process, so Distance Education was the solution during the Corona pandemic period. The problem of the study lies in answering the main question, "What are the perceptions of Palestinian university students for using Distance Education in light of the Corona pandemic?"

This question is divided into the following sub-questions:

- 1) Are there statistically significant differences at the significance level ( $\alpha \geq 0.05$ ) in the perceptions of Palestinian university students to use Distance Education in light of the Corona pandemic due to the gender variable?
- 2) Are there statistically significant differences at the significance level ( $\alpha \geq 0.05$ ) in the perceptions of Palestinian university students to use Distance Education in light of the Corona pandemic due to the university variable?

### *1.2 Study Importance*

It lies in the fact that it touches the current reality of education in light of the Corona pandemic and thus provides a perception about Distance Education in Palestinian universities by identifying students' perceptions about Distance Education.

### *1.3 Study Objectives*

Objectives of the- To identify the perceptions of Palestinian university students about the use of Distance Education in light of the Corona crisis.

- Identifying students' attitudes about the continuation of Distance Education instead of formal learning.
- Providing recommendations about Distance Education in universities in general.

### *1.4 Study Scope*

The scope of the study is limited to Palestinian university students' perceptions of using Distance Education in light of the Corona crisis.

### *1.5 Study Limits*

Time limit: Academic year 2021/2020.

Human limits: university students in Palestine Technical University / Khudouri, Al-Najah National University, and Arab American University.

Study Methodology: Based on the nature of the study and the goals it seeks to achieve, the descriptive-analytical method will be used.

### *1.6 Study Terms*

Distance Education: a process that meets the needs of learners by providing education in a variety of traditional ways that suit their abilities through the use of multiple technological means without committing to a specific time or place (Al-Hunaiti, 2004).

Procedural definition: It is the education that meets the teacher and the learner virtually when it suits the learner using various technological means.

Corona crisis: It is a global crisis related to the spread of the Covid-19 virus, which has caused various diseases and rapid spread and infection. Its symptoms are similar to influenza, but it threatens human life and leads to death. It has affected all sectors of educational, economic and health life. (World Health Organization 2020)

University students: They are the students enrolled in university education from the age of 18-22 after completing the high school stage.

### *1.7 The Concept of Distance Education*

It is the process of transferring knowledge to the learner without needing to be inside educational institutions and without the need for face-to-face meetings between the teacher and the learner. The majority of researchers and

specialists in the educational field unanimously agree on the importance of distance education because of its advantages, the most important of which are:

- Providing educational opportunities for all learners.
- It has become an urgent necessity in light of the rapid progress and the explosion of knowledge.
- Enhance life skills and focus on 21st-century skills.
- Allows learning according to the appropriate educational conditions and appropriate for the time of the learners.
- Contributes to the provision of curricula to learners in innovative and interactive ways. (UNESCO 2020)

With the development of the health crisis, which caused social and economic confusion, the majority of governments responded to ensure the continuity of education and the safety of students and actors in the field of education by closing educational institutions from schools and universities. Thus, ensuring the continuity of learning during the closure became a priority. Some of them resorted to information and communication technology and Teachers had to give lessons and lectures through the Internet. The percentage of access and actual use of distance learning methods varies based on income in different countries. In high-income countries, the percentage of distance learning reached more than 80%. In comparison, it decreases in developing countries to less than 50%, especially in areas that suffer from a lack of technological infrastructure and a low belief in digital technology among students, parents and teachers. (Giusti, 2020)

Most of the affected countries have sought to provide continuity of education amid the closure of educational institutions, whether they are schools or universities, due to the Corona pandemic, using a range of different technologies, including electronic and digital platforms, television broadcasting, and smart mobile devices. Regarding the provision of distance learning during the Corona pandemic, it indicates that 83% of the countries participating in the survey use non-digital media for learning purposes, especially in middle-income and low-income countries, where television and radio technologies are often used with the Internet (UNICEF, 2020).

The experience of "distance education" or "e-learning" for Palestinian universities is an innovative initiative with a strategic impact that is recorded among the achievements and experience of Palestine as an advanced country in the face of the threats and risks of the Coronavirus crisis. It will contribute to the development educational system, as it is considered a proven backup plan for any new risks and threats being attacked. This is the chemistry of innovation for the continuity of work and preservation of human safety at its heart.

Many experts stress that this type of education - despite its importance - cannot constitute a real substitute for face-to-face teaching. Distance education in Palestine, especially schools, still faces many problems, foremost among which is that some teachers, parents and students are not prepared for this form of education. They lack the skills required to practice it and the lack of technical, logistical capabilities of some teachers and parents, especially the devices, computers, and the Internet at high speeds to reach the desired results. Because distance education in Palestinian schools, which has about one million and 250 thousand students in the West Bank and Gaza Strip, is recent, so many teachers and students lack sufficient knowledge of the ABCs necessary for the progress of the educational process to the required level. In light of the closure of educational institutions such as schools, institutes, universities and other centers, and students staying in their homes, based on the Palestinian Prime Minister's Decision No. 1 of 2020 emergency, based on the powers granted to him by Presidential Decree No. 1 of 2020 regarding declaring a state of emergency in all Palestinian territories to counter the threat of the Coronavirus and to prevent its spread. (Hamouda 2021)

From this point, the Ministry of Education, through the " National Institute for Educational Training ," hastened to implement distance training courses for teachers to enable them to practice this type of education. While most of the 52 institutions of higher education in Palestine were, and about 218,000 students have started creating online platforms years ago; in particular universities; where the university was working on preparing the lectures and then uploading them on its website, which would enable the student to return to watch the lecture again, and at any time they wanted. Therefore, the method of practicing Distance Education in higher education institutions was more efficient than in schools. But according to many observers, it did not live up to the required level. (Ministry of Education, 2020)

### *1.8 Global Education Coalition and Shifts after Coronavirus Crisis*

As part of the international efforts being made to assist countries in facing the repercussions of the pandemic and rationalizing the expected transformations of education, the "Global Education Coalition" was established under the auspices of the United Nations. Along with UNESCO, the World Health Organization, the World Food

Program and Organisation for Economic Co-operation and Development, The United Nations Children's Fund (UNICEF), the International Telecommunication Union, the World Bank, and significant technical institutions and companies, such as Microsoft, the International Association of Mobile Networks, Weidong, Google, Facebook, Zoom, KPMG, Coursera, and many other NGOs and organizations were quick to join this Coalition. "We have never seen so much upheaval in education," says Audrey Azoulay, Director-General of UNESCO. And adds: "The only way forward is for partnerships. This is what we hope the new Coalition will do, which urges Coordinated and innovative work to find solutions that not only support learners and educators today but continue with us throughout the recovery process, with a special focus on the principles of inclusion and listening". The Global Education Coalition has identified a set of goals that it seeks to achieve, the most important of which are:

- Assisting countries in mobilizing resources and implementing innovative and context-appropriate solutions to provide Distance Education and promote curricula based on high technology, low technology, or those based on non-technology.
- Finding equitable solutions that guarantee universal access to education.
- Ensuring a coordinated response and avoid overlapping efforts.
- Facilitating the return of students to school and taking care to avoid high dropout rates. (Al-Baghdadi 2020)

## 2. Previous Studies

Al-Miqdadi's study (2020) aimed to identify secondary school students' perceptions in public schools in Jordan on the use of Distance Education in light of the Coronavirus crisis and its developments. And to determine the significance of the differences in the perceptions of secondary school students on the use of Distance Education in Jordan in terms of gender variables, the study was applied in the second semester of 2020 AD, and the descriptive survey method was used. The study population consisted of high school students in public schools in Irbid, and the study sample consisted of (167) male and female students. The number of male sample members was (89), and the number of females was (78). They were chosen by a simple random method, and the study concluded that Distance Education enriches the learner's education. Distance Education helped solve many student problems. The study also showed a positive effect of using Distance Education in light of the emerging Corona crisis in Irbid education schools. And the absence of differences between the sample members due to the gender variable.

Hamouda study (2021), titled: "Difficulties of distance teaching in the faculties of media and communication in the time of the Corona crisis: Palestine as a model," aimed to provide an explanatory model to read the pros and cons of distance teaching process and understand its value and cultural dimensions. Teachers in the faculties of media and communication experienced it in light of what digital technologies have brought about in Palestine. The study found that one of the difficulties and disadvantages of Distance Education is that it facilitates cheating and plagiarism and leads to a feeling of social isolation when using Distance Education. It is also challenging to deal with distance because of the knowledge weakness about blended learning techniques. The weakness of students' technological skills was one of the most prominent difficulties. And the challenges that faced the distance teaching process for teachers of the College of Media and Communication, and we also monitored the technical challenges represented in technological illiteracy, such as sound problems, sound interruption. Sometimes the computer stopped explaining the lesson, inconsistency with some applied courses, and students' lack of self-discipline in the virtual environment.

The study proved that many faculties of communication and media in Palestine engaged and participated in conducting hypothetical discussions on academic issues raised about the curriculum offered to students at the time of the Coronavirus crisis. This result does not contradict the importance of building a Distance Education system on which we can lean in times of crises and difficult circumstances. Always supportive of education. The virtual space can be invested in Distance Education, the ability to set time management and its effective division, speed in downloading educational materials and prescribed books, saving time in setting exam grades, printing and copying exam papers, and keeping a large amount of paper and ink, thus protecting our environment.

The results of the respondents also showed that distance education is the saviour in times of crises (health, humanitarian and environmental), as it contributed to finding solutions to some personal challenges for some students, namely physical disabilities, health crises, transportation and mobility problems, and work restrictions for employed students and educated heads of families. It also enables students to receive the lesson in the most appropriate place for them and helps them develop knowledge of computers and the Internet.

The Distance Education Report in the Arab World. (UNESCO, 2020) Through questionnaires directed to various parties involved in the educational process, the study aimed to identify the challenges and obstacles that face Distance Education from multiple aspects, whether in terms of infrastructure in terms of internet speed and the

network's ability to withstand pressure. In addition to the availability of electricity, or on the psychological level concerning the readiness of the academic staff alike for the sudden transition towards Distance Education in light of the Corona pandemic, or at the educational and technical level in terms of training and adequate qualification of technological and technical skills for teachers, preparing training content and how to follow up and manage the Distance Education process. Regarding the extent of support for merging between traditional education and Distance Education in the coming years, the study found that the percentage of satisfaction with the infrastructure in terms of Internet speed varied. 62% of teachers in medium-tech countries indicated that the weak infrastructure in terms of Internet speed constituted an obstacle to learners joining classes.

In comparison, 3.47% of teachers in technically advanced countries suffer from infrastructure problems in terms of weak networks, which cannot withstand simultaneous access in huge numbers by learners. On the other hand, 51.4% of teachers complained in the countries that witnessed Crises and conflicts on its lands due to the lack of internet networks and some remote areas in several countries. As for the availability of devices for the learners, it was found that 61% of learners follow up with their lessons through laptops and 36.3% follow up through mobile phones, and about 12.2% share the devices with the rest of the family. As for the readiness of the educational staff, 41.5% of the teachers were not ready, according to the school principals, and more than 56% of the teachers suffered from the home environment that was not suitable for Distance Education. As for the educational content, it formed an essential space in the Distance Education process. Materials were prepared by the Ministry of Education or from the Internet or the teacher. The percentages of readiness varied from the points of view of the Ministry, directors and teachers. About merging traditional education and Distance Education, it was found that 62.5% of those working in the Ministry of Education support the idea of merging, and the percentage of principals and teachers between 60.7% and 60.4% support the idea of merging. In comparison, parents agreed with the concept of connecting by 42.1%. The report stressed the need to promote the use of technology and social communication techniques in education and ensure that learning resources are accessible to all in a fair and equal manner, regardless of the learners' regions.

Al-Muqrin's study (2019) aimed to identify the impact of e-learning using the learning management system (Edmodo) on the achievement of the computer course at the cognitive levels (remembering, understanding) among first-year secondary school students in Riyadh. The study sample consisted of (32) female students in the experimental group studied through the Edmodo learning management system, and (30) female students in the control group studied using the traditional method. A measure of the trend towards the e-learning management system was used. The study results showed that there were statistically significant differences between the experimental and control groups in the post-achievement on the level of remembering in favor of the control group. There were no statistically significant differences between the average of the experimental and control groups on the level of understanding and significant differences in Statistical significance between the mean of the pre and post-trend scale for the experimental group.

Al-Bawi's study (2019) aimed to identify the effect of using the Google classroom on computer department students' achievement of (Image Processing) course and their attitudes towards e-learning. The study was implemented over a full academic year, where the experimental group (47) students were taught using the educational platform and the control group (48) by the traditional method. An achievement test and a measure of attitude towards e-learning were built. The results showed the positive impact of using the educational platform on the achievement of the experimental group and their attitudes towards e-learning compared to the traditional method.

Al-Mahmadi's study (2018) aimed to identify the degree to which students at King Abdulaziz University in Jeddah benefit from using the e-learning system (EMES) and the challenges they face while using the system. The descriptive approach was used, and the study sample consisted of (570) students and (115) members of the teaching staff. The study found that the average student benefited from using the e-learning system at a medium degree (3.86). The general average of the degree of challenges faced by students using e-learning was (1.04) with a possible degree.

### 3. Study Results and Discussion

This chapter includes a complete and detailed presentation of the results of the study, which the researcher reached on the subject of the study (**Palestinian university students' perceptions of distance education in light of the Coronavirus crisis**) to answer the questions of the study and to determine its results, the following scale was used:

Table 1. Key arithmetic means answers scale

Grade	Arithmetic mean range
strongly disagree	1.80-1
disagree	2.60-1.81
neutral	3.40-2.61
agree	4.20-3.41
strongly agree	5.0-4.21

**The results related to the study questions:****The results related to the first question, which states: (What are the perceptions of Palestinian university students and Distance Education in light of the Corona crisis?)**

To answer the previous question, the researcher calculated the arithmetic means and standard deviations of the responses of the study sample members on the items of the questionnaire and its total scope. The following is an explanation of these results:

Table 2. Arithmetic means and standard deviations of the responses of the study sample members in the field of college policy

Number	Rank	Item	Arithmetic mean	Standard deviation	Percentage	Answer score
1.	21	Distance Education is a problem for me because of its need for internet service	3.7123	1.23017	74%	I agree
2.	2	Distance Education helps in browsing multiple sources of information	3.5890	1.09082	72%	agree
3.	10	Distance Education helps to take responsibility	3.3699	1.31769	67%	Neutral
4.	24	Distance Education helps the chances of success easily	3.3699	1.28568	67%	neutral
5.	23	Distance Education increases competition for high marks	3.3425	1.36646	67%	Neutral
6.	8	Distance Education develops scientific thinking	3.0411	1.22971	61%	neutral
7.	12	Distance Education shortens time with education	3.0411	1.35850	61%	neutral
8.	18	Distance Education helps in providing assignments without effort	3.0137	1.38938	60%	Neutral
9.	13	Distance Education helps make good use of time	2.9726	1.38416	59%	Neutral

10.	14	Distance Education provides flexibility in dealing with the aspects of the educational process	2.8904	1.19677	58%	Neutral
11.	15	Distance Education increases creativity	2.8356	1.31248	57%	Neutral
12.	1	Distance Education helps enrich education	2.7808	1.22754	56%	Neutral
13.	20	Distance Education helps eliminate many student problems	2.7361	1.21020	55%	Neutral
14.	11	Distance Education reduces anxiety and stress levels	2.7123	1.24141	54%	Neutral
15.	19	Distance Education helps increase opportunities for discussion of educational matters	2.6986	1.17479	54%	Neutral
16.	9	Distance Education makes learning process easier	2.6438	1.27334	53%	neutral
17.	6	Distance Education can correct errors	2.6389	1.16650	53%	neutral
18.	7	Distance Education provides adequate psychological comfort	2.6164	1.15024	52%	Neutral
19.	17	Distance Education takes into account the individual differences between other students and me	2.6164	1.18591	52%	Neutral
20.	4	Distance Education provides better understanding of study subjects	2.4932	1.17996	50%	disagree
21.	16	Distance Education makes education popular with students	2.4795	1.21461	50%	disagree
22.	22	I prefer Distance Education over face-to-face education	2.4795	1.25951	50%	disagree
23.	3	Distance Education helps solve the problems students face	2.4521	1.14311	49%	disagree
24.	5	Distance Education increases motivation and enthusiasm for education	2.4110	1.11599	48%	disagree
<b>Total</b>			<b>2.3836</b>	<b>1.26524</b>	<b>48%</b>	<b>disagree</b>

The previous table shows the arithmetic means and standard deviations where arithmetic means reached (2.38) with a degree of (disagree).

The following is a detailed presentation of this result: It is clear from the previous table that the five highest arithmetic means were obtained by the items (1, 2, 10, 24, 23), and the arithmetic mean for these items was (3.71, 3.58, 3.36, 3.36, 3.34) with a response degree (I agree / neutral) and they stated as follows:

- ✓ Distance Education is a problem for me because of its need for internet service

- ✓ Distance Education helps in browsing multiple sources of information
- ✓ Distance Education helps to take responsibility
- ✓ Distance Education helps the chances of success easily
- ✓ Distance Education increases competition for high marks

as the study sample members agreed that Distance Education is a problem for them due to the constant need for Internet service, and that Distance Education helps them refer to multiple sources of information, but there was neutrality in the answers about Distance Education helps the student to take responsibilities, or that it increases the chances of success, or that it increases the chances of competition for high marks.

As for the lowest arithmetic means, they were obtained by items (4, 16, 22, 3, 5), and the arithmetic mean for these items had (2.49, 2.47, 2.47, 2.45, 2.41) and with a response degree (I disagree) and they stated as follows:

- ✓ Distance Education provides a better understanding of study subjects
- ✓ Distance Education makes education popular with students
- ✓ I prefer Distance Education over face-to-face education
- ✓ Distance Education helps solve the problems students face
- ✓ Distance Education increases motivation and enthusiasm for education

In these items, the answers were all to a degree of (I disagree). From the students' point of view, Distance Education does not provide a better understanding of study subjects, and it does not make education attractive to students. They prefer face-to-face education over Distance Education. In addition, students' motivation and enthusiasm decrease, as it does not help them solve the problems they face.

The researcher believes that the reason for this result is that e-learning requires full readiness of students to receive educational experiences through Distance Education, such as the permanent availability of the Internet and computers. Students' significant opposition about the mechanism of Distance Education and the extent of the benefit that the student derives from this method. Perhaps the reason for this is that universities that adopt face-to-face learning did not have plans to adopt e-learning, so they suddenly switched to e-learning. This reduces their experiences in this field and makes this type of education a newcomer who needs to improve his level. The results of this study in general concord with the results of Al-Mahmadi's study (2018) in terms of challenges faced by students in using e-learning and agree with this result from the researcher viewpoint with the study of Miqdadi (2020) in that Distance Education works to enrich education for learners and agrees with Hamouda study (2021), which found that one of the difficulties and disadvantages of Distance Education is that it facilitates the process of cheating and plagiarism, and leads to a feeling of social isolation when using Distance Education. It is also challenging to deal with distance because of the cognitive weakness of blended learning techniques and the weakness of students' technological skills. One of the significant difficulties and challenges the College of Media and Communication teachers faced was the technical illiteracy of sound problems, sound interruptions, computer stoppages sometimes when explaining the lesson, inconsistency with some applied courses, and students' lack of self-discipline the virtual environment.

It also agreed with the study of Distance Education in the Arab world, UNESCO 2020, which showed that there are obstacles and challenges in terms of infrastructure in terms of internet speed and the network's ability to withstand pressure, in addition to the availability of electricity, or on the psychological level concerning the readiness of the educational staff alike for the sudden transition towards Distance Education during the Corona pandemic. It disagreed with Al-Bawi's study (2019) and Al-Muqrin study (2019) in that both studies showed a positive trend towards e-learning, while the current study found students' difficulty towards e-learning.

#### 4. Results of the Study's Hypotheses

##### 4.1 The Results of the First Hypothesis, Which States

There are no significant differences a statistic at the significance level ( $\alpha \geq 0.05$ ) in the perceptions of Palestinian university students and Distance Education in light of the Corona crisis attributed to the gender variable.

To test this hypothesis, an **Independent Sample t-test** was used to compare two arithmetic means for two independent samples to get the arithmetic means, standard deviations, the calculated (t) value, degrees of freedom and the value of statistical significance, and the following table shows the results of this test.

Table 3. Results of the independent samples t-test for the comparison between two arithmetic means for two independent samples (independent sample t-test) according to the variable gender

Doma in	Male (N=16)		Female (N=57)		Degrees of freedom	(T-value)	Significance level
	Arithmetic mean	Standard deviation	arithmetic mean	standard deviation			
<b>total</b>	<b>3.1675</b>	<b>.99976</b>	<b>2.7652</b>	<b>.82570</b>	<b>71</b>	<b>1.643</b>	<b>.1050</b>

\* Statistically significant at the level (0.05).

It is apparent in the previous table that there are no statistically significant differences at the significance level ( $\alpha \geq 0.05$ ) in the perceptions of Palestinian university students and Distance Education in light of the Corona crisis attributed to the gender variable on the total field of study, where its significance level reached (0.105), a value higher than the hypothesized value. Therefore the hypothesis related to the gender variable is accepted.

The researcher believes that male and female study sample members are in agreement in their perceptions about Distance Education in light of the Corona crisis, as the Corona pandemic has imposed on them e-learning suddenly and without prior training, and they have tried to communicate with faculty members, who are also not trained in education. E-learning, which made the interaction between them and e-learning moderate and weak in some activities.

This result agreed with Al-Miqdadi's (2020) study, where there were no differences according to the gender variable in this study.

#### 4.2 The Results of the Second Hypothesis, Which States

There are no statistically significant differences at the significance level ( $\alpha \geq 0.05$ ) in the perceptions of Palestinian university students and Distance Education in light of the Corona crisis that is attributed to the university variable.

To verify the validity of the previous null hypothesis, a one-way analysis of variance test (was conducted to get the values of the arithmetic means, standard deviations, degrees of freedom, the calculated (F) values, and the values of the level of statistical significance of the responses of the study sample members to the study fields and the total tool of the study, and the following tables show the results.

Table 4. The results of the one-way ANOVA test by university variable

Domains	Source of variance	Total squares	Degrees of freedom	Average squares	F value	Significance level
<b>Total</b>	between groups	<b>3.025</b>	<b>2</b>	<b>1.512</b>	<b>2.029</b>	
	during groups	<b>52.170</b>	<b>70</b>	<b>7450.</b>		<b>0.139</b>
	Total	<b>55.194</b>	<b>72</b>			

\*Statistically significant at the level (0.05)

The table shows no statistically significant differences at the significance level ( $\alpha \geq 0.05$ ) between the perceptions of Palestinian university students and Distance Education in light of the Corona crisis. Due to the university variable on the total field of study where the significance level reached (0.139), which is a value higher than the hypothesized value, the hypothesis related to the university variable is accepted.

The researcher believes that the study sample members, regardless of the university in which they study and from different governorates, face the same challenges in e-learning and the same conditions. The experiences they have in dealing with this system are very similar: the inability to deal with computer programs and different systems through the computer. Students' comprehension of the educational material is somewhat difficult because it does not directly cooperate with the aspects of the educational process. This result did not agree with any of the previous studies.

Here, it must be pointed out that voices in the Palestinian community called for the need to work on establishing an e-education system that adopts training teachers, students and parents and qualifying them to practice Distance Education skills to support the face-to-face education system, and not as a substitute for it, to resort to it in emergencies so that the infrastructure is provided with The occasion, platforms and ready-made educational content, to ensure the continuity and efficiency of the Palestinian educational process in all circumstances.

#### 4.3 Results

The current study results showed that the students in the various universities to which the study tool was distributed did not interact well with the idea of Distance Education. They had many reservations about this process, such as their lack of readiness for such a type of education in the Palestinian territories. Some can acquire a computer, adding to this the internet service, which is relatively poor in most regions. Thus the student cannot follow the educational process well. Therefore, the researcher had to formulate the necessary recommendations that would contribute to improving university students' view of distance education, which are as follows:

- 1) Giving training courses in the field of e-learning to both students and faculty members.
- 2) Spreading electronic culture among students to achieve the most significant degree of interaction with this type of education.
- 3) Providing an appropriate educational structure for the application of e-learning in Palestinian universities and removing all human, material and technical obstacles that prevent its spread in the educational system in various stages and fields.
- 4) The need for Palestinian universities to offer students the skills and techniques of e-learning to facilitate interaction and benefit students with educational subjects presented electronically.

After God has blessed me with completing this modest research, I can only express my gratitude and thanks to the administration of Palestine Technical University Khudouri, its educational and administrative body for the help and support they provided me during the preparation of this research, which had a significant impact on its completion.

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