

The Degree of Satisfaction of Faculty Members in Jordanian Universities Towards the Use of the Video Communication Application (Zoom) in the Educational Process During the Corona Pandemic

By

Nancy "Mohamed Khair" Al- Majthoub

Faculty of Educational Sciences - Educational Technology Consultant - Middle East University

Email: nancymm2030@gmail.com

Muhammad Anwar Al-Shaboul

Faculty of Educational Sciences - Vice Dean for Development and Quality Affairs- University of Jordan

Email: malshboul@ju.edu.jo

Abstract

This study aimed to measure the degree of satisfaction of faculty members in Jordanian universities towards the use of the video communication application (Zoom) in the educational process during the Corona pandemic. In this study, the researchers adopted the descriptive survey method, and to achieve the objectives of the study, a questionnaire consisting of (35) items was prepared, which included four fields. The first field was: the general design of the video communication application (Zoom). The second field was: the nature of the use of the video communication application (Zoom). The third field was: communication in the video communication application (Zoom). The fourth field was: attitudes of faculty members towards the application of the video communication application (Zoom). Afterwards, signs of its validity and reliability were extracted; also, the study sample consisted of (384) faculty members in Jordanian universities in the Hashemite Kingdom of Jordan for the second semester of the year 2021/2022. The results of the study showed that the degree of satisfaction of faculty members in Jordanian universities towards the use of the video communication application (Zoom) in the educational process during the Corona pandemic was high; moreover, there were statistically significant differences within the study sample that were attributed to the variables of (academic rank, specialization, experience, and gender). The study concluded with several recommendations, including the necessity of activating the video application (Zoom) in other educational stages, such as the secondary education stage and the middle education stage. It also recommended the necessity and provision of modern electronic devices and technologies in educational institutions, as well as developing programs to train faculty members on how to use and employ electronic technologies in the field of education.

Keywords: Satisfaction; Faculty Members; The Video Communication Application (Zoom); Corona Pandemic.

Introduction

Learning is an inherent right of the basic human rights, as it is the main motive and driver for the progress and development of nations. Therefore, countries pay tremendous attention to it and provide all means and capabilities to ensure the continuity of education. However, the educational process has recently been exposed to a major problem in the whole world with the beginning of the spread of the Corona pandemic, which led to the drop-out of

students and the closure of schools and universities, affecting more than 1.5 billion children and youth around the world, according to the statistics of UNESCO (2021). There was a halt to education for all school levels, and the distance education system was adopted; as a result, those responsible for the educational process turned to training teachers on teaching methods to achieve its goals, and it was necessary to provide quick solutions for online training courses to avoid the negative impact of students dropping out of school (Mustafa, 2021).

The Corona pandemic forced educational institutions to switch to the distance education system without exception in light of the precautionary measures taken by more than 150 countries around the world, including closing schools to reduce gatherings. Furthermore, teachers began communicating with students via e-mail, on various platforms, applications (such as Zoom, Skype, and WhatsApp), and social networks (Radu et al. 2020; Alshareef et al., 2021). Many institutions have used (Zoom) as a teaching platform, as the Corona pandemic has forced universities and schools to completely move from face-to-face to distance learning. Consequently, this move has created an unprecedented learning environment for both faculty and students. Many challenges have emerged including learning to use new technologies in a short period, designing educational materials that fit the new environment, providing an interactive distance learning environment, and adopting new assessment techniques.

Therefore, many universities and schools have offered professional training programs and courses for their faculty to facilitate the transition from FTF to distance teaching. Many have provided access to the Internet and laptops to their students in an effort to facilitate this rapid transition. The transition hasn't been easy for students, faculty, or administration. During the Corona pandemic, (Zoom) has been an option for many government agencies, universities, nonprofits, and individuals, Serhan (2020), because of the many advantages of this application; as the application enables a direct broadcast between the teacher and the learner, and this is necessary for the learners. Based on this, the researchers adopted measuring the degree of satisfaction of faculty members in Jordanian universities towards the use of the video communication application (ZOOM) in the educational process during the Corona pandemic, which will be clarified in this study.

Study Problem and Questions

As a result of the decisions that were issued following the Corona pandemic to close educational institutions due to the spread of the virus, universities and schools were forced to move to e-learning as a necessary alternative to the progress of the educational process, especially after it was affected by the Information Technology revolution that dominated the life of the individual (Al-Arifi, 2021; Alsoud et al., 2021). Many studies showed the effectiveness of distance education, including the study of (Al-Jawhari, 2020), the study of (Mohammed, 2020), the study of (Al-Juaid and Al-Asdodi, 2021), and the study of (Arakat and Al-Khamisi, 2021). So, many applications that support e-learning were created, which served as the link between the student, the faculty member, and the educational material, to maintain the learning process, including (Zoom) application. There are many studies that indicated the effectiveness of (Zoom) application in distance teaching, including the study of (Naji, 2021), and the study of (Bin Hammoud, 2022); however, the researchers noted the scarcity of studies that focused on measuring the degree of teachers' satisfaction towards the effectiveness of these applications in general and (Zoom) application in particular (Arici Özcan & Vural, 2020).

The justifications for this study are as follows:

1. The video communication application (Zoom) (which provides live broadcasting) was not created during the Corona pandemic. (Zoom) was founded by Eric Yuan in 2011 as a collaborative web-based video conferencing tool that provides quality audio,

video, and screen sharing, which makes it great for virtual conferences, online lectures, online meetings, and webinars, etc. It became easily available to students, staff, and faculty members, in many universities. Instructors were able to use the various features of (Zoom) to create interactive learning environments. (Serhan, 2020).

2. This application provides a good degree of security, and it has the ability to add about 1,000 participants in one meeting, all of whom are in a live broadcast with each other, audio and video.

Based on the foregoing, the problem of this study crystallized to answer the following main question:

What is the degree of satisfaction of faculty members in Jordanian universities towards the use of the video communication application (Zoom) in the educational process during the Corona pandemic?

Through this question, the study questions are united in the following lines:

Study Questions:

The current study sought to answer two main questions, which are as follows:

First question: What is the degree of satisfaction of faculty members in Jordanian universities towards the use of the video communication application (Zoom) in the educational process during the Corona pandemic?

Second question: To what extent are there statistically significant differences within the study sample that are attributed to the variables of (academic rank, specialization, experience, and gender)?

Study Objectives

This study aims to

1. Investigating the degree of satisfaction of faculty members in Jordanian universities towards the use of the video communication application (ZOOM) in the educational process during the Corona pandemic.
2. Revealing the significance of the differences in the degree of faculty members' satisfaction towards (Zoom) application which are attributed to the variables of (academic rank, specialization, experience, and gender) in the educational process during the Corona pandemic.

The Study Importance

The importance of this study comes as follows:

- 1- Recognizing the benefits and importance of video communication applications in the educational process and identifying the problems they face.
- 2- Contributing in provide decision makers with the necessary information on the satisfaction of faculty members in universities towards the use of the video communication application (Zoom).
- 3- The study tool is useful for any educational institution to measure the satisfaction of faculty members towards various video communication applications.
- 4- It also gains importance from the fact that it targets a group that has a significant impact on the educational process, namely the faculty members.
- 5- Directing the attention of those responsible for the educational process with alternative solutions to face-to-face learning, especially in times of crisis or in the event that the learner is unable to physically attend the educational institution.

Study Terms, and Its Conceptual and Procedural Definitions

This study included a number of concepts and terms, and some of the terms contained therein were defined conceptually and procedurally as follows:

Satisfaction: In general, it is defined as the individual's feeling of happiness or conviction when doing something or when he obtains it when needed (CCED, 1999). The researchers define satisfaction procedurally as: the degree that a faculty member obtains in the questionnaire regarding the degree of satisfaction towards testing (Zoom) in distance teaching during the Corona pandemic.

Faculty members: They are the people who practice the profession of teaching in Jordanian universities (Al-Saeeda, 2015). The researchers define faculty members procedurally in the study as: each individual who performs the profession of teaching in the Jordanian universities in which the study was applied.

The video communication application (Zoom): (Zoom) is one of the electronic platforms that allows direct broadcasting between a large number of individuals (Al-Naji, 2021). It is procedurally defined in this study as: one of the electronic applications used by faculty members in distance education during the Corona pandemic.

Corona pandemic: It is defined as the spread of the Corona virus (COVID-19). The World Health Organization (2020) stated that the Corona virus is one of the strains of the SARS virus, which caused damage to the respiratory system; its symptoms are similar to the symptoms of the flu, such as high temperature and headache. The Corona pandemic is defined procedurally as: an outbreak of the (COVID-19) virus that spread in 2020 and caused a global pandemic that caused a halt to the normal course of life, disruption of work, and the closure of schools and universities. During this period, education shifted from face-to-face learning to distance learning and the use of electronic platforms.

Theoretical Framework

(Zoom) video communication application was founded by Eric Yuan in 2011. It is a web-based collaborative video conferencing tool that offers quality audio, video, and screen sharing, making it great for virtual conferences, online lectures, online meetings, webinars, and more. It became readily available in many universities to students, staff, and faculty members. Instructors were able to use the various features of (Zoom) to create interactive learning environments. These features include a virtual whiteboard with annotation capability to explain concepts, break rooms for creating small collaborative group work, student feedback polls, and a chat to facilitate class discussions. Additionally, zoom meetings can be recorded and made available for future reference (Serhan, 2020).

Features of the (Zoom) Application for Meetings, Lectures, and Seminars

The video communication application (Zoom) is characterized by many features, the most important of which is it is free, since the copy of the program can be downloaded completely free of charge, and it can work on personal devices with Windows, Linux, or Mac systems, as well as Android smartphones and others. Also, one of the most important features of (Zoom) is the speed of internet connection even if it is weak, ease of registration, since registration is done through e-mail or through social networks like Facebook, it is organized, as the name of the speaker appears with his picture when possible, and the number of attendees in one room may reach (100) and the duration of the meeting may reach 40 minutes, but if the subscription is paid, then the session becomes unlimited. It also allows recording meetings, written conversations, and provides the ability to share the screen, meaning that learners or

trainees can see what the trainer displays on his device, whether images, videos, or PowerPoint presentations, etc. Moreover, the Zoom platform provides a whiteboard that can be used for drawing or writing, and also can be shared with everyone; it also provides a scheduling tool that allows preparation for lectures and meetings beforehand and setting a date in advance. It can control the number of participants and invitees by creating a password to enter the room, and it is characterized by the ability to mute the sound so that the participant can mute the voices of the participants and only keep the voice of the coach or the teacher on to ensure that the voices do not overlap, without the need to exit the session. Furthermore, it provides the possibility raise hands if one of the participants wants to speak, which supports the process of organizing the meeting or the lecture and organizing the discussion. It provides complete privacy and security, as it can fully encrypt all meetings; in addition, the participant can join the session from anywhere as long as he has a computer and the Internet (Itmezi, 2020).

Educational electronic platforms have many advantages, as Al-Yateem (2016) sees that the rapid development in communication technology and the presence of the Internet have used innovative means in e-learning, and it has created great opportunities for building an electronic learning environment that is not limited to the transfer and transmission of information between the teacher and the learner, but rather expands to the interaction and the reversing the roles in the educational process (Al-Majthoub & Muhammad, 2021). The most important features of the educational electronic platforms are as follows:

1. Digital content: Electronic platforms are mainly based on electronic educational content and are concerned with the interaction between students, the system used, and smart devices - with ease of use in accessing the virtual class and registration. This does not require much effort other than obtaining an e-mail (Al-Anzi, 2017).
2. The technical capabilities in a network dedicated to education characterized by the ability to electronic archiving and the ability to store messages and educational programs, and also enables them to be used easily from several electronic devices such as a computer or a smartphone.
3. The diversity of fields that can be developed and used across the platform from teaching (languages, science, astronomy, mathematics, medicine, educational and training courses, and different cultures), which increases and develops the learner's academic knowledge base. As a result, we can benefit from them in multiple and diverse branches of science, through the use of multimedia (still and moving images, audio, video, and texts) are used as needed, making them attractive virtual educational environments, some of which are presented in the form of direct lectures, including recorded lessons and can be referenced as needed, in addition to seminars and discussion sessions. Also, the performance is not affected by the ability to follow up by specialists, because a lot of works are created electronically and thus are not bound by the (global) time and place, so the learner does not need anything but a computer or smart phone, an internet connection, and to sit in any place convenient for him to follow his educational programs (Garrison & Anderson, 2006).
4. Keeping pace with the knowledge explosion, as they provide the information that the learner needs through its availability on the platform. They are also able to accommodate large numbers of learners, as this depends on the space allowed on the platform servers, in contrast to the capacity in traditional education, which determines the number of students by the geographical area of the classroom (Al-Sayed, 2015).
5. Repetition of content as desired, thus reducing and eliminating individual differences between learners by enabling the learner to repeat the electronic educational content according to his desire, need, and speed, until he masters and achieves the goal of the

material (Al-Halfawi, 2011).

From the above, it is clear that educational electronic platforms are characterized by the availability of techniques in an effective manner that are not available in regular education, that allows the design of educational content in a manner that takes into account learning styles (visual, auditory, and sensory); Furthermore, they help to overcome the problem of individual differences and make them only time differences, as all students achieve the educational goal required from them at different speeds by repeating the lesson at a pace that suits the learner's characteristics and abilities. The presence of everything related to the educational material and methods of communicating with teachers provides a safe environment for the learner in the World Wide Web (Al-Majthoub, 2012).

From this standpoint, these technologies reveal virtual reality technology, and there is an interactive three-dimensional environment based on electronic programs through this technology, that introduce the learner to an artificial world that simulates the real world as if it were real. The studies of Al-Moutashari (2011), Badawi study (2016), Tammam study (2018) and Ahmed (2020) indicated the effectiveness of the virtual learning environment in the educational process. Perhaps the importance of virtual learning lies in the fact that the use of virtual reality technology in education enables students to be able to explore places and things that may be difficult to access, such as (underground, deep ocean depths); also, learning through virtual reality enables the learner to truly explore objects in terms of shape and size, and it enables him to interact with others from a variety of places far or near and in unconventional and unfamiliar ways such as interacting with virtual objects. Moreover, virtual learning enables teachers to master the teaching skills through interactive educational situations that take place within a virtual learning environment (Sayed, 2019)

Based on what has been mentioned above, the researchers explain the objectives of virtual learning as follows:

1. It provides the learner with an environment in which he can develop positive attitudes towards knowledge and explore it from different sources.
2. It makes the learner able to positively interact with the local and global environments.
3. It develops the learner's technological skills and breaks the barrier of fear of using technology.
4. It makes the learner excited about orientalism and discovering the future.
5. It helps the learner to acquire the skills of being able to ask questions and discuss issues.
6. It develops the learner's tendency towards independence and self-reliance in education.
7. It develops the learner's experiences and helps them solve problems and difficulties they face (Ahmed, 2020).

Based on the foregoing, the researchers identified a number of characteristics of virtual learning, the most important of which are as follows

1. Virtual learning enables effective communication between students and each other and between students and the teacher.
2. It does not require large costs.
3. It achieves equality between the learner through the content it presents as well as the manner in which it is presented.
4. It makes education available throughout the lifespan and is not restricted to a specific age.
5. The learner can receive the academic material anywhere and at any time.
6. It helps the learner to master what he learns, as he can replay the explanation of the academic material more than once.

1. It achieves easy access to the teacher, since the student is not bound by official working hours in virtual learning.
2. It allows the academic material to be presented in different teaching methods, and the student can choose the method that suits him.
3. Physical attendance is not required, and it also helps learners with learning difficulties or concentration or poor attention, as it enables the learner to repeat the presentation and explanation of the academic material more than once.
4. It is useful, especially in times of crisis, so virtual learning becomes the effective alternative to achieving the goals of the educational process if face-to-face education stops, such as in the Corona pandemic, in which schools were closed and the entire educational process stopped.
5. It promotes good use of time as it enables the learner to learn at the time that suits him.
6. It reduces crowding in schools and universities, as it is possible for the student to learn through virtual learning at home.

Previous Studies

The following is a presentation of the previous studies that the researchers were able to view, arranged in chronological order from newest to oldest as follows:

Al-Mutairi et al. (2021) study entitled "Evaluation of Umm Al-Qura University's Experience in E-Learning from the Viewpoint of Faculty Members During the Corona Pandemic".

This study aimed to evaluate the experience of Umm Al-Qura University in e-learning from the viewpoint of faculty members during the Corona pandemic. It applied the descriptive analytical approach, and it consisted of (234) members of the faculty members who varied according to demographic variables. The study tool included a questionnaire consisting of (41) items, in which (35 items) were used to assess the university's experience in e-learning in the light of five axes, in addition to (6) items about the degree of readiness for e-learning before the pandemic. The results of the study showed that the study sample agreed on many of the pros and cons of e-learning, they also indicated a high level of satisfaction towards the experience of e-learning in general. Furthermore, there were no differences between the level of faculty members' satisfaction towards the experience of Umm Al-Qura University in e-learning during the Corona pandemic in terms of the different demographic variables that the study is interested in, which are the colleges they belong to, the academic degree, gender, and previous experience with e-learning; also, they showed a significant correlation at the level (0.01) between the level of their readiness to use e-learning before the pandemic and the degree of satisfaction of faculty members towards the experience of Umm Al-Qura University in e-learning during COVID-19.

Al-Arifi study (2021) entitled "the Degree of Satisfaction of Faculty Members at Shaqra University Towards E-learning in Light of the Corona Pandemic from the Educational Aspects from Their Point of View".

This study aimed to measure the degree of satisfaction of faculty members at Shaqra University with e-learning in light of the Corona pandemic from the educational aspects from their point of view. The study applied the descriptive survey method. Its tool was a questionnaire consisting of (23) items, and its sample consisted of (275) faculty members at Shaqra University. The results showed a high degree of satisfaction among faculty members at Shaqra University and that there were no statistically significant differences in the degree of satisfaction of faculty members at Shaqra University towards e-learning in light of the Corona pandemic from educational aspects from their point of view due to the variables of gender, academic rank, and college type. It recommended developing the skills of faculty members and Shaqra University students on e-learning through virtual courses and workshops to study the

strengths and weaknesses of the procedures followed in the planning of e-learning.

Naji's study (2021) entitled "the Reality of Using the Zoom Program in Teaching English for the Primary Stage from the Point of View of Female Teachers in the Riyadh Region".

This study aimed to reveal the reality of using the (Zoom) application in teaching English language in light of the Corona pandemic from the female teachers' point of view. It applied the descriptive approach, and the questionnaire was used as the study tool on a sample of (8) female English language teachers for the primary stage from the city of Riyadh. The results of the study showed that female teachers' perceptions of the (Zoom) platform as an easy-to-use and effective platform for distance teaching, and they revealed their satisfaction with its use. It recommended the importance of holding training courses on effective teaching strategies in teaching English during online education.

Dhawan's Study (2020) entitled "Online Learning: A Panacea in the Time of COVID-19 Crisis". This study aimed at educational institutions (schools, colleges, and universities) in India that currently exist that rely solely on traditional learning methods, i.e., they follow face-to-face lectures in classroom. Although many of its academic units have also started blended learning, many are still stuck with outdated procedures. The sudden outbreak of the Corona virus shook the entire world, and this situation challenged the education system across the world that forced teachers to switch to online teaching method overnight. The article includes the importance of online learning, strengths and weaknesses, from the Analysis of Opportunities and Challenges (SWOC) to e-learning patterns in the time of crisis. This article also sheds some light on the growth of EdTech Start-up during a time of pandemic and natural disasters and includes suggestions for academic institutions on how to approach the challenges associated with online learning.

Serhan D.'s study (2020) entitled "Transitioning from Face-to-Face to Remote Learning: Students' Attitudes and Perceptions of Using Zoom during COVID-19 Pandemic". Many organizations have used (Zoom) as a delivery platform. This study aimed to investigate students' attitudes towards the use of (Zoom) in remote learning, and their perceptions of its effects on their learning and participation compared to FTF learning. The sample for this study was thirty-one university students. Data were collected using a 5-point Likert scan. The results indicated that students had a negative attitude towards the use of (Zoom) and considered it to have a negative impact on their learning experience and their motivation to learn. Students mentioned flexibility as a major advantage of using (Zoom) for learning.

Commenting on Previous Studies

By reviewing previous studies and by extrapolating some of the curricula used in them, in addition to some of their objectives, results, and tools, this study agrees with most of the previous studies on the following:

1. The effectiveness of using e-learning in the educational process, whose tools include applications of video communication and virtual classes, such as the studies of Naji (2021), Al-Arifi (2021), Al-Mutairi, Younis, Al-Harithi and Al-Sajini (2021), and Dhawan (2020).
2. Education via electronic platforms is important and can achieve a great deal of educational goals, especially in the midst of crises such as the Corona pandemic crisis.
3. We need more studies that contribute to developing solutions to the challenges facing distance education, especially in Arab countries.

4. While this study was characterized by preparing a tool that measures the degree of satisfaction of faculty members towards the use of the video communication application in four fields:

First field: the general design of the video communication application (Zoom).

Second field: the nature of the use of the video communication application (Zoom).

Third field: Communication in the video communication application (Zoom).

Fourth field: Attitudes of faculty members towards the video communication application (Zoom).

Study Methodology

The researchers used the descriptive approach, due to its relevance to the nature of the study and the achievement of its objectives.

Study Sample

The study sample consisted of faculty members in Jordanian universities (public and private) in the capital, Amman, in the Hashemite Kingdom of Jordan. It consisted of (380) faculty members in various disciplines, and the questionnaire was distributed to them through an electronic Google Form, during the second semester of the second academic year (2021/2022).

Study Tool

In this study, the researchers used a questionnaire to identify the degree of satisfaction of faculty members in Jordanian universities towards the use of the video communication application (Zoom) in the educational process during the Corona pandemic. They prepared a questionnaire based on the skills and objectives of e-learning. It was prepared in a number of steps as follows:

It consisted of (38) questions and included four fields. First field: the general design of the video communication application (Zoom).

Second field: the nature of the use of the video communication application (Zoom).

Third field: Communication in the video communication application (Zoom).

Fourth field: Attitudes of faculty members towards the video communication application (Zoom).

- 1- The questionnaire was presented to a number of arbitrators to know their opinions about the questionnaire's statements by writing down their observation whether it belongs or not and then formulating the statements again based on their opinions.
- 2- The wording of the questionnaire was modified to become (35) items after deleting the items that do not belong from the point of view of the arbitrators
- 3- The questionnaire was applied to an exploratory sample of faculty members to ensure the integrity of the statements and that they are all clear and unambiguous.

In this study, the five-point Likert scale was used as (strongly agree, agree, neutral, disagree, strongly disagree) respectively to measure the degree of faculty members' satisfaction in Jordanian universities towards the use of the video communication application (ZOOM) in the educational process during the pandemic. The response to the questions was also given a weight, so the weights were categorized as: 1: Strongly disagree, 2: Disagree, 3: Neutral, 4: Agree, and 5: Strongly agree.

Then the arithmetic mean value was calculated based on the number of categories in the scale as follows:

First: Calculating the range which is equal to $5-1 = 4$

Second: Calculating the length of the category by dividing the range by the number of categories $4/5 = 0.80$. Therefore, the first category of arithmetic mean has values from 1 to 0.80, and Table no. (1) shows the values.

Table (1). *Response criteria according to the arithmetic mean values*

Arithmetic Mean Values	Response Standard
1-1.80	Strongly Disagree
1.81-2.60	Disagree
2.61-3.40	Neutral
3.41-4.20	Agree
4.21-5	Strongly Agree

The Reliability of the Questionnaire

The reliability of the questionnaire was calculated by calculating the alpha-Cronbach coefficient, in which the questionnaire obtained a reliability value of (0.958), which is a high percentage of reliability.

The Validity of the Questionnaire

First: Apparent Validity.

It was mentioned previously when presenting the steps of preparing the questionnaire that the apparent validity was used, as the tool was presented to a group of arbitrators, three of the statements were deleted based on their opinions, and the questionnaire was formulated as (35) statements.

Internal Consistency Validity.

Where the correlation coefficients were calculated between each axis of the questionnaire and the Pearson correlation coefficient. The results showed that all correlation coefficients were statistically significant at the level of significance (0.01), which indicates the internal consistency between all the expressions as shown in Table no. (2).

Table (2). *Internal Consistency*

Dimensions	The degree of Pearson's correlation coefficient
First dimension: the overall design of (Zoom)	**0.901
Second dimension: the nature of the use of (Zoom)	**0.759
Third dimension: Communication in (Zoom)	**0.638
Fourth dimension: attitudes of faculty members towards (Zoom)	**0.791

It is clear from Table no. (2) above that the Pearson correlation coefficients between the degree of each dimension and the total degree are significant at a function level of 0.01, which confirms that the dimensions of the scale are consistent with what it measures about the degree of faculty members' satisfaction towards the application of (Zoom) in education during the spread of the Corona pandemic.

Study Results and Discussion

A. Results

First question: What is the degree of satisfaction of faculty members in Jordanian universities towards the use of the video communication application (Zoom) in the

educational process during the Corona pandemic?

To answer this question, arithmetic means and standard deviations were extracted, ranks and the degree of satisfaction of faculty members in Jordanian universities towards the use of the video communication application (ZOOM) in the educational process during the Corona pandemic were indicated, and Table (3) illustrates this.

Table (3). *Arithmetic means and standard deviations of the degree of faculty members' satisfaction in Jordanian universities towards the use of the video communication application (ZOOM) in the educational process during the Corona pandemic, ranked in descending order*

No	Item	Arithmetic Mean	Standard Deviation	Rank	Degree of Satisfaction
3	Communication in (Zoom)	4.13	0.72	1	High
2	The Nature of the Use of (Zoom)	3.95	0.68	2	High 1
	The General Design of (Zoom)	3.87	0.65	3	High 4
	Attitudes of Faculty Members Towards (Zoom).	3.59	0.76	4	Medium
	The Degree of Satisfaction of Faculty Members in Jordanian Universities Towards the Use of (Zoom)	3.81	0.65		High

Table (3) shows that the degree of satisfaction of faculty members in Jordanian universities towards the use of the video communication application (Zoom) in the educational process during the Corona pandemic was high, as the arithmetic mean of the total degree of the tool was (3.81) with a standard deviation equal to (0.65). The fields came in the high and medium degrees, ranging between (3.59-4.13). Communication in (Zoom) ranked first with the highest arithmetic mean amounted to (4.13), with a standard deviation equal to (0.72), and at a high degree. The nature of the use of (Zoom) came in the second place, with an arithmetic mean of (3.95), with a standard deviation of (0.68) and at a high degree. The attitudes of faculty members towards (Zoom) came in the last place, with an arithmetic mean of (3.59), with a standard deviation of (0.76) and a medium degree.

The arithmetic means and standard deviations of the estimates of the study sample were calculated on the items of each field separately, as they were as follows:

1- Communication in (Zoom)

Table (4). *Arithmetic means and standard deviations of the degree of satisfaction of faculty members in Jordanian universities towards communication in (Zoom), ranked in descending order.*

No	Item	Arithmetic Mean	Standard Deviation	Rank	Degree of Satisfaction
21	The video communication application (Zoom) makes it easy to invite people to the virtual meeting by sending the link directly	4.28	0.75	1	High
20	The video communication application (Zoom) is characterized by the ability to teach from anywhere and at any time.	4.13	0.94	2	High
18	The video communication application (Zoom) provides the possibility of simultaneous communication between a student and a faculty member	4.11	0.75	3	High
19	Students participating in the video communication application (Zoom) can be known by the ID of their devices.	3.99	0.97	4	High
	Communication in (Zoom)	4.13	0.72		High

Table (4) shows that the degree of satisfaction of faculty members in Jordanian

universities towards communication in the video communication application (Zoom) was high, as the arithmetic mean of the total degree of the tool was (4.13) with a standard deviation of (0.72). The items came in the high degree, ranging between (4.28-3.99). Item (21) “The video communication application (Zoom) makes it easy to invite people to the virtual meeting by sending the link directly” ranked first with the highest arithmetic mean of (4.28), a standard deviation of (0.75), and with a high degree. Item (20) “The video communication application (Zoom) is characterized by the ability to teach from anywhere and at any time” came in second place with an arithmetic mean of (4.13), a standard deviation of (0.94) and at a high degree. Item (19) “Students participating in the video communication application (Zoom) can be known by the ID of their devices” ranked last with an arithmetic mean of (3.99), a standard deviation of (0.97), and a high degree.

2- The Nature of the Use of (Zoom)

Table (5). Arithmetic means and standard deviations of the degree of satisfaction of faculty members in Jordanian universities towards the nature of the use of (Zoom), ranked in descending order.

No	Item	Arithmetic Mean	Standard Deviation	Rank	Degree of Satisfaction
11	Ease of downloading the video communication application (Zoom) on various electronic devices, such as mobile phones, computers, and tablets	4.42	0.71	1	High
12	The video communication application (Zoom) features PowerPoint presentations, video, new window, and student screen sharing	4.33	0.85	2	High
14	The video communication application (Zoom) is characterized by the ease of creating a virtual meeting.	4.03	0.97	3	High
13	The video communication application (Zoom) supports the use of various teaching strategies that are effective in the educational process.	3.90	0.93	4	High
15	The use of the video communication application (Zoom) is characterized by the few technical faults of the devices	3.75	0.85	5	High
17	Availability of technical support on the video communication application (Zoom) by the educational institution	3.73	1.10	6	High
16	The availability of a user guide for the video communication application (Zoom) by the educational institution	3.52	1.23	7	Medium
	The Nature of the Use of (Zoom)	3.95	0.68		High

Table (5) shows that the degree of satisfaction of faculty members in Jordanian universities towards the nature of the use of the video communication application (Zoom) was high, as the arithmetic mean of the total degree of the tool was (3.95) with a standard deviation of (0.68). The items came in the high and medium degrees, ranging between (3.52-4.42). Item (11) “Ease of downloading the video communication application (Zoom) on various electronic devices, such as mobile phones, computers, and tablets” ranked first with the highest arithmetic mean of (4.42), a standard deviation of (0.71), and with a high degree. Item (12) “The video communication application (Zoom) features PowerPoint presentations, video, new window, and student screen sharing” in the second place, with an arithmetic mean of (4.33), a standard deviation of (0.85), and with a high degree. Item (16) “The availability of a user guide for the video communication application (Zoom) by the educational institution” came in the last rank, with an arithmetic mean of (3.52), a standard deviation of (1.23), and with a medium degree.

3- The General Design of (Zoom)

Table (6). Arithmetic means and standard deviations of the degree of satisfaction of faculty members in Jordanian universities towards the general design of (Zoom), ranked in descending order.

N o.	Item	Arithmet ic Mean	Standard Deviation	Ra nk	Degree of Satisfaction
4	It is easy to identify the officials from faculty members and their student assistants in the virtual meeting via (Zoom)	4.27	0.88	1	High
1	The interface of (Zoom) is well-designed	4.19	0.86	2	High
2	The use of (Zoom) is flexible in terms of the computer devices used (PC, phone, tablet, iPad)	4.13	0.82	3	High
8	It is easy to control tools for discussion and meeting with students, recording, audio and video control, and others, in (Zoom).	4.02	0.74	4	High
10	(Zoom) facilitates the interaction between the faculty member and the students while explaining the simultaneous lessons	3.92	1.01	5	High
5	The free version (100 users) of (Zoom) can be used with the subjects I teach	3.87	0.89	6	High
9	(Zoom) allows me to act as a guide and facilitator for student learning	3.84	0.81	7	High
3	(Zoom) is characterized by maintaining the confidentiality and privacy of the user	3.81	0.97	8	High
6	The whiteboard can be used effectively during the educational process through (Zoom)	3.59	1.05	9	Medium
7	The session time specified by the free version of (Zoom) (40 minutes) fits the subjects I study	3.11	1.26	10	Medium
	The General Design of (Zoom)	3.87	0.65		High

Table (6) shows that the degree of satisfaction of faculty members in Jordanian universities towards the general design of the video communication application (Zoom) was high, ranging between (3.11-4.27). Item (4) "It is easy to identify the officials from faculty members and their student assistants in the virtual meeting via (Zoom)" came in the first place with the highest arithmetic mean of (4.27), a standard deviation of (0.88), and with a high degree. Item (1) "The interface of (Zoom) is well-designed" came in the second place and with an arithmetic mean of (4.19), a standard deviation of (0.86), and with a high degree. Item (7) "The session time specified by the the free version of (Zoom) (40 minutes) fits the subjects I study" came in the last rank with an arithmetic mean of (3.11), a standard deviation of (1.26), and with a medium degree.

4- Attitudes of Faculty Members Towards (Zoom).

Table (7). Arithmetic means and standard deviations of the degree of satisfaction of faculty members in Jordanian universities towards the attitudes of faculty members towards (Zoom), ranked in descending order.

N o.	Item	Arithmetic Mean	Standard Deviation	Ra nk	Degree of Satisfaction
25	I have the ability to manage the virtual meeting via (Zoom)	4.23	0.82	1	High
23	I see how (Zoom) fits the theoretical subjects I am teaching.	4.14	0.87	2	High
26	I am ready to teach using the e-learning system via (Zoom)	4.08	0.97	3	High
34	I feel that proper training positively affects the success of the use of (Zoom)	3.99	0.91	4	High
35	I sometimes feel easy to access (Zoom) when using a mobile phone	3.94	0.95	5	High
28	I think that (Zoom) needs more effort from the faculty member compared to the usual FTF education system.	3.78	1.21	6	High
22	I feel that (Zoom) is suitable for the practical subjects I'm teaching.	3.73	1.10	7	High
31	I see that the effectiveness of teaching through (Zoom) during the Corona pandemic was somewhat satisfactory.	3.61	0.98	8	Medium
24	I think that the use of (Zoom) has a positive effect on students' learning	3.47	1.08	9	Medium
27	I feel fun and excited while teaching through (Zoom), as it includes simultaneous human interaction	3.35	1.29	10	Medium
29	I see that learning through (Zoom) helps students to use their time wisely and perfectly	3.23	1.31	11	Medium
30	I believe that the use of (Zoom) helps to achieve the learning outcomes efficiently.	3.06	1.33	12	Medium
32	I feel that (Zoom) rapidly supports higher-order thinking skills for students.	3.04	1.31	13	Medium
33	I feel that my students are learning better through (Zoom) compared to the normal method.	2.62	1.29	14	Medium
	Attitudes of Faculty Members Towards (Zoom).	3.59	0.76		Medium

Table (7) shows that the degree of satisfaction of faculty members in Jordanian universities of faculty members' attitudes towards (Zoom) was medium, as the arithmetic mean of the total degree of the tool was (3.59) with a standard deviation of (0.76). The items came in the high and medium degrees, ranging between (2.62-4.23). Item (25) "I have the ability to manage the virtual meeting via (Zoom)" came in the first place with the highest arithmetic mean of (4.23), a standard deviation of (0.82), and with a high degree. Item (23) "I see how (Zoom) fits the materials I am teaching" came in the second place, with an arithmetic mean of (4.14), a standard deviation of (0.87), and with a high degree. Item (33) "I feel that my students are learning better through (Zoom) compared to the normal method" came in the last place with an arithmetic mean of (2.62), a standard deviation of (1.29), and with a medium degree.

Second question: To what extent are there statistically significant differences within the study sample that are attributed to the variables of (academic rank, specialization, experience, and gender)?

This question was answered as follows:

1- Social Gender.

The arithmetic means and standard deviations of the performance of the study sample members on the study tool were extracted according to the gender variable, and (t-test) was applied for the independent samples, and the following table shows those results

Table (8). Arithmetic means and standard deviations of the performance of the study sample members on the study tool according to the gender variable and the (t-test) for the independent samples

Range	Social Gender.	No.	Arithmetic Mean	Standard Deviation	T-Value	Significance Level
The General Design of (Zoom)	Male	321	3.80	.647	-5.475	0.000
	Female	63	4.27	.527		
The Nature of the Use of (Zoom)	Male	321	3.88	.663	-4.887	0.000
	Female	63	4.33	.670		
Communication in (Zoom)	Male	321	4.05	.742	-4.659	0.000
	Female	63	4.50	.404		
Attitudes of Faculty Members Towards (Zoom).	Male	321	3.53	.735	-3.463	0.001
	Female	63	3.89	.790		
The Degree of Satisfaction of Faculty Members in Jordanian Universities Towards the Use of (Zoom)	Male	321	3.74	.643	-4.826	0.000
	Female	63	4.16	.551		

It is noted from the previous table that there is a significant difference between the arithmetic means and standard deviations of the performance of the study sample members on the study tool according to the gender variable and based on the calculated T-Value of (-4.826) with a significance level of (0.038). The table indicates that there are statistically significant differences between the arithmetic means of the performance of the study sample in all fields based on the calculated T-Values that ranged between (-5.475) and (-3.463) with a significance level of (0.000-0.001). The difference was in favor of the females in the total score and all fields because their arithmetic means were the highest.

2- Academic Rank

The arithmetic means and standard deviations of the performance of the study sample members on the study tool were extracted according to the academic rank variable, and the following table shows those results.

Table (9). *Arithmetic means and standard deviations of the performance of the study sample members on the study tool according to the academic rank variable*

Range	Academic Rank	No.	Arithmetic Mean	Standard Deviation
The General Design of (Zoom)	Professor	83	3.90	.351
	Co-professor	111	3.66	.905
	Assistant Professor	181	4.01	.545
	Teacher	9	3.60	.000
	Total	384	3.87	.652
The Nature of the Use of (Zoom)	Professor	83	3.89	.452
	Co-professor	111	3.83	.956
	Assistant Professor	181	4.07	.562
	Teacher	9	3.71	.000
	Total	384	3.95	.683
Communication in (Zoom)	Professor	83	4.36	.316
	Co-professor	111	3.95	1.088
	Assistant Professor	181	4.16	.509
	Teacher	9	3.50	.000
	Total	384	4.13	.717
Attitudes of Faculty Members Towards (Zoom).	Professor	83	3.65	.487
	Co-professor	111	3.37	.973
	Assistant Professor	181	3.71	.690
	Teacher	9	3.29	.000
	Total	384	3.59	.755
The Degree of Satisfaction of Faculty Members in Jordanian Universities Towards the Use of (Zoom)	Professor	83	3.85	.341
	Co-professor	111	3.61	.914
	Assistant Professor	181	3.92	.535
	Teacher	9	3.49	.000
	Total	384	3.81	0.65

It is noted from the previous table that there are apparent differences between the arithmetic means and standard deviations of the performance of the study sample members on the study tool according to the academic rank variable. For example, the arithmetic mean of the assistant professor was the highest, which amounted to (3.92), followed by the arithmetic mean of the professor, which amounted to (3.85); finally, the arithmetic mean of the teacher, which amounted to (3.49). To ensure that these differences are statistically significant at the significance level ($\alpha = 0.05$), a one-way analysis of variance (ANOVA) was applied, and the results of the analysis came as shown in the following table:

Table (10). *The results of the one-way analysis of variance (ANOVA) for the differences between the arithmetic means of the performance of the study sample members on the study tool according to the academic rank variable*

Range	Source of Variance	Total Squares	Degrees of Freedom	Mean Squares	Value (p)	Significance Level
The General Design of (Zoom)	Between Groups	9.250	3	3.083	7.620	.000
	Within Groups	153.755	380	.405		
	Grand Total	163.005	383			
The Nature of the Use of (Zoom)	Between Groups	4.756	3	1.585	3.459	.017
	Within Groups	174.162	380	.458		
	Grand Total	178.918	383			
Communication in (Zoom)	Between Groups	12.008	3	4.003	8.217	.000
	Within Groups	185.117	380	.487		
	Grand Total	197.125	383			
Attitudes of Faculty Members Towards (Zoom).	Between Groups	8.988	3	2.996	5.442	.001
	Within Groups	209.177	380	.550		
	Grand Total	218.165	383			
The Degree of Satisfaction of Faculty Members in Jordanian Universities Towards the Use of (Zoom)	Between Groups	7.553	3	2.518	6.261	.000
	Within Groups	152.821	380	.402		
	Grand Total	160.375	383			

It is noticed from the previous table that there is a significant difference between the

arithmetic means and the standard deviations of the performance of the study sample members on the study tool according to the academic rank variable, based on the calculated p-value of (6,261) with a significance level of (0.000). The table indicates that there are statistically significant differences among the arithmetic means of the performance of the study sample in all fields, based on the calculated p-values, which ranged (8.217-3.459) with a level of significance of (0.000-0.017). The Scheffe test for dimensional comparisons was applied to determine the return of differences between the arithmetic means, and the following table shows the results.

Table (11). *Scheffe test results for the differences between the arithmetic means of performance of the study sample members on the study tool according to the academic rank variable*

Range	Academic Rank	Arithmetic Mean	Assistant Professor	Professor	Co-professor	Teacher
The General Design of (Zoom)	Assistant Professor	4.01	4.01	3.90	3.66	3.60
	Professor	3.90	-	0.11	0.35*	0.41*
	Co-professor	3.66	-	-	0.24*	0.30*
	Teacher	3.60	-	-	-	0.00
The Nature of the Use of (Zoom)	Assistant Professor	4.07	4.07	3.89	3.83	3.71
	Professor	3.89	-	0.18	0.24*	0.36*
	Co-professor	3.83	-	-	0.06	0.11
	Teacher	3.71	-	-	-	0.12
Communication in (Zoom)	Assistant Professor	4.36	4.36	4.16	3.95	3.50
	Professor	4.16	-	0.20	0.41*	1.14*
	Co-professor	3.95	-	-	0.21	0.66*
	Teacher	3.50	-	-	-	0.45*
Attitudes of Faculty Members Towards (Zoom).	Assistant Professor	3.71	3.71	3.65	3.37	3.29
	Professor	3.65	-	0.06	0.34*	0.42*
	Co-professor	3.37	-	-	0.28	0.36*
	Teacher	3.29	-	-	-	0.08
The Degree of Satisfaction of Faculty Members in Jordanian Universities Towards the Use of (Zoom)	Assistant Professor	3.92	3.92	3.85	3.61	3.49
	Professor	3.85	-	0.07	0.31*	0.43*
	Co-professor	3.61	-	-	0.24*	0.36*
	Teacher	3.49	-	-	-	0.12

The previous table indicates that the difference was in favor of the arithmetic mean of the categories of assistant professor and professor when compared with the arithmetic mean of the categories of teacher and co-professor in the total score of the tool and the rest of the fields.

3- Specialization

The arithmetic means and standard deviations of the performance of the study sample members on the study tool were extracted according to the specialization variable, and the

following table shows those results.

Table (12). *Arithmetic means and standard deviations of the performance of the study sample members on the study tool according to the specialization variable*

Range	Specialization	No.	Arithmetic Mean	Standard Deviation
The General Design of (Zoom)	Humanities	285	3.84	.713
	Scientific	81	3.99	.459
	Medical	18	3.95	.154
	Total	384	3.87	.652
The Nature of the Use of (Zoom)	Humanities	285	3.90	.749
	Scientific	81	4.10	.365
	Medical	18	4.14	.588
	Total	384	3.95	.683
Communication in (Zoom)	Humanities	285	4.08	.782
	Scientific	81	4.31	.500
	Medical	18	4.00	.000
	Total	384	4.13	.717
Attitudes of Faculty Members Towards (Zoom).	Humanities	285	3.65	.780
	Scientific	81	3.49	.625
	Medical	18	3.04	.625
	Total	384	3.59	.755
The Degree of Satisfaction of Faculty Members in Jordanian Universities Towards the Use of (Zoom)	Humanities	285	3.80	.705
	Scientific	81	3.85	.444
	Medical	18	3.63	.412
	Total	384	3.81	.647

It is noted from the previous table that there are apparent differences between the arithmetic means and standard deviations of the performance of the study sample members on the study tool according to the specialization variable. For example, the arithmetic mean of the scientific major was the highest, which amounted to (3.85), followed by the arithmetic mean of the humanities major, which amounted to (3.80), and finally, the arithmetic mean of the medical major, which amounted to (3.63). To ensure that these differences are statistically significant at the significance level ($\alpha = 0.05$), a one-way analysis of variance (ANOVA) was applied, and the results of the analysis came as shown in the following table:

Table (13). *The results of the one-way analysis of variance (ANOVA) for the differences between the arithmetic means of the performance of the study sample members on the study tool according to the specialization variable*

Range	Source of Variance	Total Squares	Degrees of Freedom	Meann Squares	Value (p)	Significance Level
The General Design of (Zoom)	Between Groups	1.552	2	.776	1.831	.162
	Within Groups	161.453	381	.424		
	Grand Total	163.005	383			
The Nature of the Use of (Zoom)	Between Groups	3.081	2	1.540	3.337	.037
	Within Groups	175.838	381	.462		
	Grand Total	178.918	383			
Communication in (Zoom)	Between Groups	3.459	2	1.730	3.403	.034
	Within Groups	193.666	381	.508		
	Grand Total	197.125	383			
Attitudes of Faculty Members Towards (Zoom).	Between Groups	7.479	2	3.740	6.762	.001
	Within Groups	210.686	381	.553		
	Grand Total	218.165	383			
The Degree of Satisfaction of Faculty Members in Jordanian Universities Towards the Use of (Zoom)	Between Groups	.707	2	.354	.844	.431
	Within Groups	159.667	381	.419		
	Grand Total	160.375	383			

It is noted from the previous table that there are no statistically significant differences between the arithmetic means and standard deviations of the performance of the study sample members on the study tool according to the specialization variable, based on the calculated p-value of (0.844) with a significance level of (0.431). In addition, there are no statistically

significant differences between the arithmetic means and standard deviations of the performance of the study sample members on the field of the general design of (Zoom) based on the calculated p-value of (1.831) with a significance level of (0.162). Moreover, the table indicates that there are statistically significant differences between the arithmetic means of the performance of the study sample in the areas of the nature of the use of (Zoom), communication in (Zoom), and the attitudes of the faculty members towards (Zoom), based on the calculated p-values that ranged between (6.762-3.337) with a significance level between (0.001-0.037). The Scheffe test for dimensional comparisons was applied to determine the return of differences between the arithmetic means, and the following table shows the results.

Table (14). *Scheffe test results for the differences between the arithmetic means of performance of the study sample members on the study tool according to the specialization variable*

X	Specialization	Arithmetic Mean	Medical	Scientific	Humanities
The Nature of the Use of (Zoom)	Medical	4.14	4.14	4.10	3.90
	Scientific	4.10	-	0.04	0.24*
	Humanities	3.90	-	-	0.20*
Communication in (Zoom)	Specialization	Arithmetic Mean	Scientific	Humanities	Medical
			4.31	4.08	4.00
	Scientific	4.31	-	0.23*	0.31*
	Humanities	4.08	-	-	0.08
Attitudes of Faculty Members Towards (Zoom).	Medical	4.00	-	-	-
	Specialization	Arithmetic Mean	Humanities	Scientific	Medical
			3.65	3.49	3.04
	Humanities	3.65	-	0.16	0.61*
	Scientific	3.49	-	-	0.45*
	Medical	3.04	-	-	-

The previous table indicates that the difference was in favor of the arithmetic mean of both scientific and humanities majors when compared with the arithmetic mean of the medical major in the field of faculty members' attitudes towards (Zoom), in favor of the arithmetic mean of the scientific major when compared with the arithmetic mean of the medical and humanities majors in the field of communication in (Zoom), and in favor of the arithmetic major of the medical and scientific majors when compared with the arithmetic mean of the humanities major in the field of the nature of the use of (Zoom).

4- Years of Experience

The arithmetic means and standard deviations of the performance of the study sample members on the study tool were extracted according to the experience variable, and the following table shows those results.

Table (15). *Arithmetic means and standard deviations of the performance of the study sample members on the study tool according to the experience variable*

Range	Years of Experience	No.	Arithmetic Mean	Standard Deviation
The General Design of (Zoom)	1-5 years	63	4.09	.452
	6-10 years	100	3.67	.410
	More than 10 years	221	3.91	.758
	Total	384	3.87	.652
The Nature of the Use of (Zoom)	1-5 years	63	4.24	.479
	6-10 years	100	3.71	.487
	More than 10 years	221	3.98	.768
	Total	384	3.95	.683
Communication in (Zoom)	1-5 years	63	4.21	.391
	6-10 years	100	3.90	.465
	More than 10 years	221	4.20	.851
	Total	384	4.13	.717
Attitudes of Faculty Members Towards (Zoom).	1-5 years	63	3.56	.883
	6-10 years	100	3.53	.473
	More than 10 years	221	3.63	.818
	Total	384	3.59	.755
The Degree of Satisfaction of Faculty Members in the Decision of (Zoom)	1-5 years	3	3.92	.70
	6-10 years	100	3.65	.503
Total	103	3.64	.640	

It is noted from the previous table that there are apparent differences between the arithmetic means

and the standard deviations of the performance of the study sample members on the study tool according to the experience variable. For example, the arithmetic mean of experience of 1-5 years was the highest, as it reached (3.92), followed by the arithmetic mean of experience of more than 10 years, which amounted to (3.84), and finally the arithmetic mean of experience of 6-10 years, which amounted to (3.65). To ensure that these differences are statistically significant at the level of significance ($\alpha = 0.05$), a one-way analysis of variance (ANOVA) was applied. The results of the analysis are shown in the following table:

Table (16). *The results of the one-way analysis of variance (ANOVA) for the differences between the arithmetic means of the performance of the study sample members on the study tool according to the experience variable*

Range	Source of Variance	Total Squares	Degrees of Freedom	Mean Squares	Value (p)	Significance Level
The General Design of (Zoom)	Between Groups	7.422	2	3.711	9.087	.000
	Within Groups	155.583	381	.408		
	Grand Total	163.005	383			
The Nature of the Use of (Zoom)	Between Groups	11.503	2	5.752	13.089	.000
	Within Groups	167.415	381	.439		
	Grand Total	178.918	383			
Communication in (Zoom)	Between Groups	6.853	2	3.427	6.861	.001
	Within Groups	190.272	381	.499		
	Grand Total	197.125	383			
Attitudes of Faculty Members Towards (Zoom).	Between Groups	.634	2	.317	.555	.574
	Within Groups	217.531	381	.571		
	Grand Total	218.165	383			
The Degree of Satisfaction of Faculty Members in Jordanian Universities Towards the Use of (Zoom)	Between Groups	3.636	2	1.818	4.419	.013
	Within Groups	156.739	381	.411		
	Grand Total	160.375	383			

It is noted from the previous table that there are statistically significant differences between the arithmetic means and standard deviations of the performance of the study sample members on the study tool according to the experience variable, based on the calculated p-value of (4.419) with a significance level of (0.013). Furthermore, there are statistically significant differences between the arithmetic means and standard deviations of the performance of the study sample members in all fields based on the calculated p-values of (13.089-6.861) with a significance level of (0.000-0.001). Also, the table indicates that there are no statistically significant differences between the arithmetic means for the performance of the study sample members in the field of the attitudes of faculty members towards (Zoom), based on the calculated p-value of (0.555) with a significance level of (0.574). The Scheffe test for dimensional comparisons was applied to determine the return of differences between the arithmetic means, and the following table shows the results.

Table (17). *Scheffe test results for the differences between the arithmetic means of performance of the study sample members on the study tool according to the experience variable*

Range	Years of Experience	Arithmetic Mean	1-5 years	More than 10 years	6-10 years
The General Design of (Zoom)	1-5 years	4.09	4.09	3.91	3.67
	More than 10 years	3.91	-	0.18	0.42*
	6-10 years	3.67	-	-	0.24*
The Nature of the Use of (Zoom)	1-5 years	4.24	4.24	3.98	3.71
	More than 10 years	3.98	0.24	0.26*	0.53*
	6-10 years	3.71	-	-	0.27*
Communication in (Zoom)	1-5 years	4.21	4.21	4.20	3.90
	More than 10 years	4.20	-	0.01	0.31*
	6-10 years	3.90	-	-	0.30*
The Degree of Satisfaction of Faculty Members in Jordanian Universities Towards the Use of (Zoom)	1-5 years	3.92	3.92	3.84	3.65
	More than 10 years	3.84	-	0.08	0.27*
	6-10 years	3.65	-	-	0.19*

The previous table indicates that the difference was in favor of the arithmetic mean of the experience category of 1-5 years when compared with the arithmetic mean of the experience category of (6-10 years) in the total score of the tool and the fields of: the general design of (Zoom) and the communication in (Zoom), and in favor of the arithmetic mean of the experience category of 1-5 years when compared with the arithmetic mean of the experience categories of (6-10 years and more than 10 years) in the field of the nature of the use of (Zoom).

B. Study Recommendations and Suggestions

Through the results of the study, it recommended the following:

1. Working on activating (Zoom) in the secondary and intermediate education stages as it has proven its effectiveness in the university education stages, since the trends of faculty members' satisfaction with the effectiveness of (Zoom) in education were high.
2. It is possible to use other applications that have the same characteristics in distance education, such as the Google+ application, which has the feature of circles, i.e., forming groups, as well as being able to activate video calls, group conversations, and exchange discussions by asking questions, sending and saving documents, and drawing maps, etc.
3. It recommends providing modern technical devices and equipment in universities and schools to facilitate the use of electronic applications and platforms.
4. It also recommends the need to train teachers and faculty members on how to use modern technologies and employ them in the field of education.

List of Arabic References

1. Ahmed, Heba Abdul Mohsen (2020). The effect of using a virtual learning environment in teaching home economics on cognitive achievement and improving the quality of life for female students of the Educational Rehabilitation Division, Faculty of Education, Sohag, Journal of the College of Education, Mansoura University, p. (6).
2. Itmezi, Jamil (2020). Teachers' guide to using the Zoom Meetings platform to present live lectures over the Internet, Palestine, 1st Edition.
3. Bin Hammoud, Alia Bint Sultan and Al Ahmad Hind Bint Mohammed Bin Abdullah (2022). Master's Thesis, College of Talbiyah, Al-Imam Ibn Saud Islamic University
4. United Nations Report (2020). Academic Impact: COVID-19 and Education.
5. Tammam, Shadia Abdul Halim (2018). Designing an electronic learning environment based on asynchronous virtual classrooms to develop micro-teaching skills for social studies: a case study, Faculty of Graduate Studies of Education, Cairo University, p. (97).
6. Al-Juaid, Bandar Owaid and Nuha, Nabil Al-Asdoudi (2021). The impact of the Corona pandemic (COVID-19) on the employment of e-learning in media and academic public relations programs, Scientific Journal of Public Relations and Advertising Research, p. (21).
7. Al-Jouri, Issam (2021). The impact of the emerging Corona pandemic on the information technology industry in Egypt: opportunities and threats, The Egyptian Journal of Development and Planning, p. (42).
8. Al-Halfawi, Walid Salem Muhammad (2011). E-Learning: New Applications, Cairo, Dar Al-Fikr Al-Arabi for Publishing and Distribution, 1st Edition.
9. Al-Saeeda, Muhammad Jalal Karim (2015). University teaching skills that should be available to faculty members at Al-Balqa Applied University from the point of view of

- their students, Master's thesis, College of Educational Sciences, Middle East University.
10. Sayed, Doaa Mohammed (2019). The Effectiveness of Using Virtual Classrooms in Teaching a Teaching Methods Course on Developing Effective Teaching Skills, Journal of the College of Education, Assiut University, p. (6).
 11. Arakat, Ihsan Al-Husseini and Al-Khamis d, Sayed Salama (2021). Developing the effective role of the teacher in distance education in light of the challenges of the Corona pandemic, Journal of the Faculty of Education, Assiut University, p. (79).
 12. Al-Arifi, Sultan (2021). The degree of satisfaction of faculty members at Shaqra University towards e-learning in light of the Corona pandemic from the educational aspects from their point of view, Journal of Man and Society, p (2).
 13. Al-Anazi, Talal Marwan Khalaf (2017). The reality of Saudi school students' use of modern technology tools from the point of view of their teachers and its relationship to some variables, Master's thesis, unpublished, University of Jordan, Jordan
 14. Al-Majthoub, Nancy (2021) Building an educational electronic platform and investigating its impact on addressing reading and writing problems for pupils of the age group (7-8 years) in the capital of Amman. Master's Thesis, Middle East University, Amman, Jordan.
 15. Mohamed, Zayed (2020). The importance of distance education in light of the outbreak of the Corona virus, Al-Ijtihad Journal for Legal and Economic Studies, p. (4).
 16. Mustafa, Mohamed Fathi Abdel-Fattah (2021). Obstacles of distance education in light of the Corona pandemic from the point of view of teachers and parents of Giza District schools. Master's thesis, Faculty of Educational Sciences, Middle East University.
 17. Al-Mutairi, Khaled Hatem Aseer (2021). Evaluating the experience of Umm Al-Qura University in e-learning from the point of view of faculty members during the Corona pandemic, International Journal of E-Learning, p (3)
 18. Al-Mutairi, Khaled Hatem Aseer and others (2021). Evaluating the experience of Umm Al-Qura University in e-learning from the point of view of faculty members during the Corona pandemic. International Journal of E-Learning, p (2).
 19. El Montashari, Halima Youssef (2011). A proposed training program based on virtual classrooms in developing effective teaching skills for Sharia science teachers, Master's thesis, College of Graduate Studies, King Abdulaziz University.
 20. Naji, Asma (2021). The reality of using the Zoom program in teaching English for the primary stage from the point of view of female teachers in the Riyadh region, Journal of Educational and Psychological Sciences, Palestine, p. (16).
 21. Nabawi, Abu Dunya, and Abdul Majeed, Muhammad. (2021). Interactive educational platforms (Zoom, Edmodo) and their impact on the level of cognitive achievement of the hammer throwing skill. The Scientific Journal of Sports Sciences and Arts, p. (52).
 22. UNESCO and the World Bank (2021). Education Loss Due to COVID-19 Rebuilding Quality Education for All in the Middle East.

List of Foreign References

- AHI, C., & BL, G. (2021). Undergraduates' Satisfaction on Zoom E-Learning Application: Empirical Evidence from Management Undergraduates. Available at SSRN 4120509.
- Alfadda, H. A., & Mahdi, H. S. (2021). Measuring students' use of zoom application in language course based on the technology satisfaction model (TAM). Journal of Psycholinguistic Research, 50(4), 883-900.

- Al-Majthoub, N. M. K., & Muhammad, M. (2021). The Effect of a Proposed Online Educational Platform in Manipulating Students' Reading and Writing Problems. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(14), 1400-1418.
- Alshareef, H. N., Alsoud, A. R., Johar, M., Abd Hamid, J., Abdeljaber, O., & Tham, J. (2021). Teachers' Perspective on the Digitalization of Higher Education, Resilience, and Emotional Trauma in Jordan. *Educational Sciences: Theory & Practice*, 21(4), 17-30. <http://dx.doi.org/10.12738/jestp.2021.3.002>
- Asma Naji. (2021). The Utilization of Zoom's Videoconferencing in Teaching English Language in Primary Stage in Riyadh: Teachers' Perspective 5(16), 152 –142. <https://doi.org/10.26389/AJSRP.N071220>
- Alsoud, A. R., Mbaydeen, M., Ab Yajid, M. S., Tham, J., Badrakhan, S., & Shukri, S. M. (2021). Competence of the Distance-Learning Portal'Darsak'with Jordan's K-12 Curriculum/University Education. *Educational Sciences: Theory & Practice*, 21(4), 48-66. <http://dx.doi.org/10.12738/jestp.2021.3.004>
- Arici Özcan, N., & Vural, Ö. (2020). The Mediator Role of Thriving in the Relationship between Self-Efficacy and Mindfulness in Middle-Adolescence Sample. *Educational Sciences: Theory and Practice*, 20(3), 56-66. <https://doi.org/10.12738/jestp.2020.3.005>
- Collins Cobuild English Dictionary (CCED). (1999). London, UK: Harper Collins Publishers. Retrieved April 23,2015 from: <http://www.collinsdictionary.com/dictionary/english/satisfaction>
- Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of educational technology systems*, 49(1), 5-22
- Gharawi, A. M. A., & Alotaibi, B. M. A. (2021). Identifying the Challenges of Distance Learning During the Corona Pandemic for Students with Learning Difficulties from the Point of View of their Teachers in Makkah Al-Mukarramah. *Journal of Tikrit University for the Humanities*, 28(9).
- Irawan, I. A. Improvement of Social Science Learning Achievement with A Scientific Approach Assisted with The Zoom Meeting Application in Class IV Primary School. In *Social, Humanities, and Educational Studies (SHEs): Conference Series (Vol. 3, No. 3, pp. 647-652)*.
- Kaur, H., & Mahajan, P. (2020). Library and Information Services of AC Joshi Library during COVID–19 pandemic: a study of faculty satisfaction. *Library Philosophy and Practice*, 1-20.
- Kim, H. (2020). The efficacy of Zoom technology as an educational tool for English reading comprehension achievement in EFL classroom. *International Journal of Advanced Culture Technology*, 8(3), 198-205.
- Radu, M. C., Schnakovszky, C., Herghelegiu, E., Ciubotariu, V. A., & Cristea, I. (2020). The impact of the COVID-19 pandemic on the quality of educational process: A student survey. *International Journal of Environmental Research and Public Health*, 17(21), 7770.
- Serhan, D. (2020). Transitioning from Face-to-Face to Remote Learning: Students' Attitudes and Perceptions of Using Zoom during COVID-19 Pandemic. *International Journal of Technology in Education and Science*, 4(4), 335-342.
- Setiawan, I., Farid, M., & Fatimah, J. M. (2021, September). Level of Effectiveness of Using Zoom Meeting Application as a Learning Media on Students of IAI Muhammadiyah Sinjai. In *2nd International Conference on Science, Technology, and Modern Society (ICSTMS 2020)* (pp. 298-303). Atlantis Press.