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The Reality of E-Learning Among the Basic Schools in Palestine From the Students', Teachers' and School Principals' Point of View

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Thesis Approval

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Declaration

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Dedication

To the One who has the first and last credit, to the guide, to the right path

God Almighty

To those who said the truth about them, "And, out of kindness, lower to them the wing of humility, and say: "My Lord! Bestow on them thy Mercy even as they cherished me in childhood." (Al-Israa: 24)

To the soul of my mother and

To my great father,

May God prolong their lives and provide them with piety and chastity.

To those who instilled in me all the meanings of love, loyalty, and giving. My brothers and sisters, husband, son and daughter. To the sincere person who directed, influenced me and clarified my vision, and without whom I would not have completed this research, Dr. Soheil Salha.

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Abstract

The advent of COVID-19 pandemic worldwide, urged schools to implement e-learning approaches to continue the teaching process. In Palestine, the Ministry of Education imposed e-learning at private and public schools, a step that created a lot of challenges along the learning process. Within this context, the study aimed at revealing the reality of e-learning with regards to the respondents' readiness, governmental legislations, school role, and the main effects of Covid-19 on the learning process among the basic schools in Palestine from the teachers', students' and school principals' view. To achieve these objectives, a descriptive and analytical methodology was applied, where the researcher designed three questionnaires and distributed them among random samples that comprised 307 students, 74 teachers and 10 school principals at basic schools in Palestine. The questionnaires' validity was achieved by presenting them to a jury. The reliability coefficients were 0.746, 0.760 and 0.863 respectively. The researcher also conducted interviews with 10 teachers and parents of students at basic schools in Palestine.

The findings showed that:

- Teachers were more ready than students and school principals for implementing e-learning in the basic schools in Palestine.

- Teachers had a higher degree towards the governmental legislations and school role than students and school principals.

- The reflections of Covid-19 on the learning process among basic schools in Palestine were high according to school principals', teachers', and students' perspectives.

- There was a significant relationship related to the readiness of the students, teachers and school principals and the effects of Covid-19, in favor of students.

- Both students and school principals believed that there was a significant relationship between their readiness and the governmental legislations and the school role more than teachers at the basic schools in Palestine.

- Male students had a higher degree than female students towards the reality of e-learning regarding readiness, governmental legislations, school roles, and the impact of Covid-19 on the learning process.

- Students of the public schools had a higher degree of the reality of e-learning than students at private schools in Palestine.

- Students in the primary stage preferred to attend classes at home due to their readiness to experience e-learning method

- Students who preferred attending classes at school or at home were more affected of Covid-19 than those who preferred to attend classes at home., While teachers who preferred attending classes at school were more affected than those who preferred attending classes at home.

- Most of students had very good ability of using technological devices, while most of teachers had excellent ability, and school principals had very good ability.

- Most of the students, teachers and school principals preferred to use Zoom application for e-learning process.

According to these findings, the researcher recommended school principals to develop and improve school infrastructure and resources either by training teachers and the administrative staff, or by providing the proper tools, instruments and applications at their schools to implement e-learning since it's been found that it is going to be the future methodology worldwide due to ongoing spread of Covid-19 pandemic. The study also

recommended teachers to train themselves very well to deal with various applications since each of them had different features to use in the learning process.

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Chapter One

Introduction

1.1 Preface

E-learning is considered the new era of learning to be applied in schools. In the wake of the medical emergency, decision makers are endorsing e-learning for the sake of students' safety and enhancing the quality of education. This transition in learning made students attend classes via the digital platforms. This transition requires raising awareness towards the importance of e-learning, communication, and skills in using the internet applications. Students and teachers should know how to use these applications, how to download and upload files, in addition to archiving data and surfing the search engines for useful information. On the other hand, some researchers doubted the validity of e-learning when compared with the traditional, face to face method of learning (Aboaye, et al., 2020).

The educational institutions set out plans that supported the application of e-learning approach at schools. These plans included teachers and students should be fully prepared, either by providing devices such as computers, laptops, iPad, and notepad, or acquiring the suitable skills to handle these devices, and using the suitable applications to achieve the learning process (Mahyoob, 2020).

Furthermore, most educational institutions increased the reliance on online learning, and encouraged teachers and students to participate in distance education (Martin & Bolliger, 2018). E-leaning is considered one of the main common approaches in distance learning, as it provides students with the appropriate needed knowledge to keep in touch with their teachers in crises. Several researchers believed that Covid-19 pandemic forced most

schools to integrate e-learning in the educational process upon the lockdown of schools regardless of their readiness (Radha, et al., 2020).

Nevertheless, the enforcement of e-learning created may challenges among students, teachers and school principals, since Covid-19 caused a disruption in the educational process, where most of countries were taken by sudden, and forced them to review their readiness to implement e-learning to ensure that the learning process had not stopped (Bao, 2020).

The spread of COVID-19 obligated the educational institutions, the public, and private sectors, to turn their works, and activities into web based actions. In this regard, the researcher conducted this study to investigate the reality of e-learning in the basic schools, highlighting the merits and demerits of this approach from the students', teachers', and school principals' views.

1.2 Research Problem

The recent trends to develop and leverage education in the Palestinian schools instigated the Ministry of Education (MoE), stakeholders and decision-makers to set out effective policies and strategies to realize top notch learning. These policies and strategies were interrupted by the pandemic, leading the decision-makers and school principals to adopt creative strategies to continue the educational march with the distance teaching and e-learning which are considered the most suitable and relevant approaches.

The MoE immediately launched its National Response Plan for COVID 19, highlighting distance learning as an alternative solution to ensure the continuation of the learning process (MoE, 2020). Regardless the fact of having the ability and the desire of self-learning, many researchers believed that e-learning still needs a lot of preparations, due the absence of vision and consequent policy (Al-zeer and Al-badawi, 2021). Many factors

affected directly and indirectly the learning process, particularly the student's ability, teacher's skills, school's preparations, network availability, and legislations for implementing e-learning.

Given that the researcher works at a private school, she noticed that the educational process needs diligent efforts and preparations to apply e-learning in the basic stage, especially seventh, eighth and ninth grades. This study was conducted to detect the school readiness, and preparations to implement e-learning on the basic stage, and to answer the main question: What is the reality of e-learning among the basic schools in Palestine from the students', teachers' and school principals' views?

1.3 Research Significance and Justifications

The significance of this study originated from its modernity and sensitivity, where the Palestinian MoE faced a lot of impediments to adopt a learning methodology that suits all circumstances, especially after the spread of Covid-19 pandemic and its repercussions which halted the achievement of the strategic plans with respect to education. This situation led to challenges in the public and private schools where principals have to maintain the learning process going according to the new policy of learning. This new policy required development in the schools' infrastructure including networks, and the availability of the technological devices that suit e-learning. The new learning approach needed skills in dealing with internet applications. Moreover, students faced the same problems, as many families lacked the needed techniques and tools to apply e-learning.

The importance of this study lies in the findings of the practical part which will be reflected on the teachers', students' and school principals' perspectives towards e-learning. The results of the study offered an analysis of strengths and weaknesses of e-learning, and provided students the students, teachers and principals with a guide on what

is needed to achieve e-learning in the best shape such as excellent Internet connection with a high capacity of download, computers and digital devices, advanced skills in mastering digital platforms and communication skills. Hence, the impact of COVID-19 may continue for an indefinite period, students, teachers and principals are obliged to train themselves to deal with internet applications as virtual classrooms are focal to continue learning process.

The findings introduced a clear explanation and illustration of the e-learning reality in schools, which could help decision-makers and strategic planners to draft some suitable objectives to avoid the effects of locking down schools due to COVID-19 or any similar situations in the future.

On the other hand, this research project gave scholars and researchers a clear picture of the Palestinian ability to implement e-learning, that could help them to prepare future projects for discussing advantages and disadvantages of e-learning.

1.4 Research Objectives

1) To identify the Palestinian learning situation within the context of Covid-19 pandemic.

2) To illustrate the Palestinian MoE's strategy in addressing the obstacles of locking down schools.

3) To reveal the scholars' and researchers' findings and conclusions towards adopting e-learning method in various environments (international, Arabic and local).

4) To find out the respondents' (students, teachers and school principals) views towards e-learning method.

5) To introduce some recommendations for decision-makers, teachers and students on how to be ready to learn through e-learning methodology.

1.5 Research Questions

1.5.1 Main Question

The researcher tried to answer the main question: What is the reality of e-learning among the basic schools in Palestine from students', teachers' and school principals' point of view?

1.5.2 Sub-Questions

This question led to the following sub-questions:

1. What are the respondents' (students, teachers and school principals) point of view towards their readiness to implement e-learning at the Palestinian basic schools?

2. What are the respondents' (students, teachers and school principals) point of view towards the governmental legislations and school role with respect to implementing e-learning at the Palestinian basic schools?

3. What are the main effects of COVID-19 on e-learning process at the Palestinian basic schools from the respondents' (students, teachers and school principals) point of view?

1.6 The Study Hypotheses

H1: There is a statistical relationship at $\alpha \leq 0.05$ significant level between the respondents' point of view towards their readiness to implement e-learning and the effects of COVID -19 pandemic at the Palestinian basic schools.

H2: There is a statistical relationship at α≤0.05 significant level between the respondents' point of view towards their readiness to implement e-learning and the governmental legislations / school roles due to COVID -19 at the Palestinian basic schools.

H3: There are statistical differences at α≤0.05 significant level between the respondent's point of view towards the reality of e-learning at the Palestinian basic schools due to their demographic characteristics which comprise gender, school type, grade, subject, network availability, and ability to use e-learning applications.

1.7 Potential Obstacles

The main obstacle that I faced in conducting the research is related to the principals' and teachers' participation, since they are very busy at their work. Moreover, the students at the basic stages needed an explanation of the questionnaire statements that required the parents' help and cooperation with teachers to obtain the proper answers.

In addition, since one-third of the Palestinian families did not have internet or computer devices at their homes. Most of the families live in villages, and consequently some students were not able to fill the questionnaire upon the lockdown procedures, which caused a problem to me.

1.8 Definition of Terms

E-learning: E-learning approach uses the Internet or other digital content for learning and educational activities, that takes full advantage of modern educational technology to provide a new mechanism for communication and learning environment rich in resources to achieve a new way of learning (Liu, 2010).

Basic School: Basic (Primary) schools are educational institutions that teach children from 1 to 10th grade (MOHE, 2021).

COVID-19: Corona virus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. Most people infected with the virus will experience mild to moderate respiratory illness and recover without requiring special treatment. However, some will become seriously ill and require medical attention (WHO, 2022).

Chapter Two

Literature Review

2.1 Introduction

Due to the rapid changes in the educational sector globally, most of the educational institutions took into the account the need to develop the learning process, considering the student as the center of teaching process.

2.2 E-learning

2.2.1 The Concept of E-learning

E-learning is a discipline that combines teaching theory and computer network in order to allow learners to complete their courses via a computer network (Internet or Intranet) (O'Neil, 2001). It is also defined where instructions are delivered on a digital device such as the computer or mobile and is intended to support learning (Clark and Mayer, 2016: 8).

E-learning is a continuous assimilation of knowledge and skills stimulated by synchronous and asynchronous learning events— and sometimes knowledge management outputs— which are authored, delivered, engaged with, supported, and administered using Internet technologies (Morrison, 2003: 4).

E-learning provides several features to students, it is used to expose the course tools on the internet using learning management systems, sometimes, teachers use blended learning as preparation to save class time, where students can watch videos that illustrate the course before attending the class, so they can discuss and participate more effectively (Schneider & Council, 2020).

Shahzad and his colleagues (2021) clarified that traditional education has changed the way of learning, whereas, e-learning is covered under larger term of technology-based learning through websites, learning portals, videos conferencing, YouTube, mobile apps, and thousand types of free available websites for blended learning tools.

We conclude that e-learning is a new trend for the learning process that depends on web-based tools and applications to present classes online, where students and teachers can share the class and discuss lessons without their physical attendance.

2.2.2 The Importance and Advantages of E-learning

The accessibility of technology and the wide spread of the internet have generated a surge in the need for web-based learning and teaching. Distance learning is an increasingly expanding environment, which enables users the flexibility to operate outside the barriers of place and time. In university education, online learning is explained as learning that takes place completely or partially over the internet (Gilbert, 2015). Online learning is beneficial to a number of learners and appears as more common in settings from elementary schools to high schools and into post-secondary education.

The role of engagement in e-learning is important for effective learning as it is not merely student-student interaction that matters. There are six different forms of engagement that can be identified in distance learning and they are as follows: the teacher-the content, the content-content, the student-teacher, the student-student, the teacher-teacher and the student-content (Talebian, Mohammadi and Rezvanfar, 2014).

Many advantages could be realized from implementing e-learning in the learning process. E-learning ensures that students are completely involved, as learning takes place together with texts, videos, sounds, collaborative sharing, and interactive graphics. It may enhance

the quality of teaching and learning, outline the need for higher institutions to maintain competitive advantage, and access to education and training in this globalizing marketplace for students (Islam, Beer and Slack, 2015).

On the other hand, the integration of information technology (IT) in the form of e-learning has resulted in the reduction of students' cost, concurrently with improving the quality of learning and teaching (Songkram, 2015). This shows that e-learning can be of an economic advantage for students, besides performing other useful activities in their spare time (Aparicio, Bacao and Oliveira, 2016).

Flexibility is another major advantage of e-learning, it provides learners the benefit to take classes anywhere and anytime. Furthermore, e-learning involves different types and varieties of learning approaches by utilizing much interactive content available on the internet (Songkram et al., 2015).

2.2.3 E-learning Tools and Instruments

Morrison (2003: 10-11) argued that learners have their point of view about the main elements of e-learning, it appears as a combination of log on process, registration process, personal profile, competency and skills assessments, course catalogues, course enrolment processes, pre-defined learning paths, personal learning path, customizable home page, online courses, downloadable courses or course elements, electronic performance support systems, moderated message boards (formal peer-to-peer communication), peer-to-peer message boards (informal peer-to-peer communication), peer-to-peer instant messaging (informal peer-to-peer communication), virtual classrooms (live and archived), online mentoring, other collaborative applications (e.g., Lotus Anytime, Webex, Groove), Web casts (live and archived), links to public or

subscription Web sites, Access to proprietary or third-party Knowledge Management databases, online help files, online held desks and telephone help desks).

Electronic learning is used to offer instructional programs to distant learners (Arkorful and Abaidoo, 2015). It is an online learning platform that emerges in a formal context and utilizes a variety of multimedia technologies. Electronic hardware and software support this system either offline or online, where personal computers are usually used for delivering training or computer-enhanced learning related to e-learning (Samsuri, Nadzri and Rom, 2014).

Other communication technologies deliver learning based on tutorials, learning support systems, and online lectures (Kattoua, Al-Lozi and Alrowwad, 2016). It is based on technology for improving classroom engagement through positive environment, where students are deliberately engaged in online tutorials for completing a task assigned to them.

2.3 The Impact of Covid-19 Pandemic on the Learning Process at The Educational Institutions

The Corona virus disease of 2019 (COVID-19) rampaged across the globe, and as a result, the majority of the world's countries were forced to impose lockdowns by April 2020. Most of the countries have taken extreme measures to contain the spread of the virus. These measures were inevitable and have dire repercussions on every aspect of the human life. For example, the temporary closure of schools, universities, and other educational institutions has forced over 91% of the students worldwide, about 1.6 billion, to remain indoors, unable to attend their studies as usual (UNICEF, 2020).

Such a disruption in the educational sector is unprecedented. Moreover, the impact of this crisis on the education of the most vulnerable and marginalized students is enormous. However, despite the fact that COVID-19 pandemic is disrupting the educational process, governments and various educational institutions are striving to provide their students with a non-stop teaching and learning experience as much as possible (Bao, 2020).

Soon after the outbreak of the COVID-19 in Wuhan, China, millions of Chinese students and teachers transferred from the traditional learning to online learning (Bao, 2020). For instance, Peking University launched live online programs for its 2613 undergraduate courses and 1824 graduate courses facilitating more than 44,700 students who stay at homes or dormitories (Lie, 2021).

Within this context, The United Nation Children's Fund (UNICEF), Microsoft Corporation, and Cambridge University, among others, announced the expansion of their global online learning platform called (Leaner Passport) to provide education to students affected by the COVID-19 pandemic (UNIDEF, 2021). This massive shift in traditional (on-campus face-to-face) education, is considered as a huge challenge for both teachers and students. It is unknown how these changes have affected the students' learning behavior, and the effectiveness of online learning or e-learning.

 The current studies have identified certain obstacles to e-learning such as the lack of self-discipline, motivation, appropriate study materials, and a good learning atmosphere (Bao, 2020).The outbreak of COVID-19 pandemic and the current changes in the learning environment have influenced the students' learning behavior in particular.

2.4 Theories Related to E-learning

Theories that encourage the adoption of new technologies in the learning process are based on the assumption that students are active participants who pursue and create knowledge throughout a meaningful context. Different means of collaborative tools can be used for communication and collaborative learning (Sarkar, 2012).

The design of a learning system implies a heavy task for implementing. The learning space is left under the control of the instructors and institutions using conventional learning management system (LMS) irrespective of any external tools (Sarrab, Al-Shihi and Rehman, 2013). In particular, this leaves minimal space for learners to organize their digital learning space and to carry-forward their activities.

One of the most common theories that explains adopting e-learning is Faucet Theory, since it deals with the socio-economic differences among respondents (students, teachers and school principals), and their impact on their learning levels. The higher socio-economic students proved that even schools that provided education to all different economic students, but this group proved that they had developed their skills and continued their learning through vacations, and school summer (Di Pietro, et al., 2020).

The present study also adopted the technology-mediated learning theory to find out the implications of the theoretical concepts. In addition, the study sheds light on the scope and conditions under which are the appropriate theories could be applied during Covid-19 crisis.

2.5 Related Studies

Many researchers conducted their studies within the context of Covid-19 pandemic to investigate the effects of the pandemic on societies and individuals and how it is reflected on health, economy and social levels. Some of these studies focused on studying the effects of the pandemic on education, and the efforts made by the governments and decision-makers to apply e e-learning whether in schools or universities to pursue the educational process. This study came to reveal the viewpoints of students, teachers and school principals towards e-learning and shed light on the implications of the pandemic on the learning process in the basic schools in Palestine.

2.5.1 Studies Related to the Attitudes Towards E-learning

Many researchers investigated the students' attitudes and readiness regarding distance learning methods. E-learning was the most popular approach adopted at the educational institutions, knowing that a lot of obstacles arose when applying this method. The study of Ouadoud and his colleagues (2021) found that Moroccan University students faced a lot of problems when e-learning is applied. The study found that about 10% of the University students have dropped out online courses or failed after implementing e-learning. The study concluded that students need special devices and follow-up that could aid them in maintaining motivation towards self-learning.

On the other hand, the study of Shraim and Crompton (2020) examined how decision-makers and teachers have responded to offer education for all the Palestinian students when COVID-19 widely spread, and how technology is being employed to continue education online. Semi-structured interviews were conducted with 20 participants from parents, teachers and decision-makers in Palestine. The findings showed that the

participants identified that technologies such as mobile devices, social media and cloud computing could be useful for the design and delivery of educational materials, as well as raising safety awareness, and communication during the pandemic in Palestine. The findings also identified various challenges on the risks of digital education and the negative attitudes towards online education. This research further demonstrated that teachers who adopted e-learning had a significant role in influencing both students and other teachers to adopt the transition to online learning. In addition, the national and international initiatives and partnerships with the stakeholders provide sustainable, long-term, actual solutions for online learning.

Raheem and Khan (2020) proved that the Indian schools dealt with the lockdown process to avoid the spread of the pandemic, and these schools had good experience in e-learning approach. The researchers recommended teachers and students to develop their skills in using the internet applications; e.g., Zoom, Teams, Veev, Google classroom that proved its efficiency and helped the students to keep studying at homes.

On the other hand, many studies applied the analytical approaches to illustrate of impact of COVID-19 pandemic on the educational process. Among them came the study of Dhawan (2020) who applied SWOT analyses. The study confirmed the growth of EdTech Start-ups at schools and universities, and the decline of the traditional pedagogical approach since the options to continue the learning process are minimal

In Palestine, Ziada (2020) conducted a qualitative study to investigate the degree of practice among mathematics teachers at the secondary stage of e-learning skills due to the spread of COVID-19 pandemic. The researcher distributed 80 questionnaires to male/female math teachers who worked in the Palestinian schools. The findings showed that there was a medium degree of e-learning approach among mathematic teachers with

respect to e-learning techniques, search, management and evaluation. The study also showed that there were statistically significant differences regarding e-learning management skills attributed to gender, in favor of male teachers, and for e-learning management due to academic qualification, in favor of high graduate studies holders, and for electronic evaluation due to teaching experience, in favor of higher teaching experience.

2.5.2 Studies Concerned with E-learning Implementation and Preparation at the Educational Institutions

Daher and his colleagues (2022) investigated the role of ICT centers at the Palestinian universities in the management of the academic process in emergency education due to the spread of COVID-19 pandemic. The researchers interviewed 10 officials who work at ICT centers in five Palestinian universities. The findings showed that the Palestinian universities have taken several actions and activities to manage distance learning process. Such actions targeted quality education by holding workshops for the professional development of the instructor, which lead to the success distance learning process due to pandemic. Add to that, ICT centers played a successful role by engaging the communication between instructors, students and officials. It also showed that these centers addressed strengthening the infrastructure for distance learning in the Palestinian universities.

On the other hand, many studies explored the engagement of students in e-learning process during COVID-19, such as the study of Khalif, et al. (2021). The researchers interviewed 34 participants including 14 students, 13 teachers from the middle classes in the Palestinian schools and 7 parents. The findings showed that the

main factors that affected students' engagement were infrastructure, cultural factors, digital inequality and the risk of digital privacy in sequence.

Students may face obstacles when implementing e-learning at their educational institutions such as the high cost of buying online data. This result was approved by Demuyakor (2020), who found that even the Ghanaian students in Beijing – China had acknowledged the implementation of e-learning, but it was very costly to them. Meanwhile, Allo (2020) showed that EFL learners at UKI Toraja had appreciated online learning regardless of the obstacles they faced. The study recommended lecturers to give their instruction via Voice Note even if it was not an easy way for the students to use, but they will get use to it by practice.

2.5.3 Studies Concerned with the Effects of Covid-19 Pandemic on the Learning Process

Soni (2020) argued that the educational process has an increased number of online classes, meetings that showed a complete dependent on Information Technology during Covid-19 crisis. The study illustrated the impact of this pandemic on e-learning through explaining e-learning tools that schools use along with the future perspective on education. While, Radha and his colleague (2020) concluded that Covid-19 has flipped out the offline teaching process and replaced it with e-learning among all educational institutions (schools, colleges and universities).

Since e-learning process gives the opportunity for students to keep in touch with their teachers in order to complete the curriculum, this situation created many challenges to them. Di Pietro and his colleagues (2020) showed that e-learning approach had direct and indirect impact on students' achievements,. The study concluded that a minimum of

few selected EU countries consistently indicated that students suffered a learning loss, and Covid-19 had not affected students equally. In addition, it had a negative influence on both cognitive and non-cognitive skills acquisition, and may have dire short and long-term consequences. These results were proved previously, according to Parkes, et al., (2014) who concluded that students were not sufficiently prepared for balancing their school activities, family, and social lives in an online learning environment. Students were also found to be poorly prepared for several e-learning competencies and academic-type competencies. Additionally, there was a low-level of readiness among the students regarding the usage of Learning Management Systems.

Another study was conducted by Mahyoob (2020) showed that Saudi EFL learners faced many problems due to the impact of online WFL learning during Covid-19. These difficulties were technical, academic and communication challenges. The results of the study also showed that EFL students were not satisfied with continuing online learning, since they did not achieve progress in language learning performance.

Comma and her colleagues (2020) found that educational institutions were not fully prepared for online learning. Thus, the advantages of online learning identified in other studies seem to diminish in value, while the disadvantages become more prominent. The set of problems that emerged while applying online learning comprise on top of the list, the technical issues , followed by the teachers' lack of technical skills and their teaching style are improperly adapted to the online environment. Not to forget the students' lack of interaction with teachers or poor communication with them.

2.5.4 Studies Concerned with the Main Obstacles that Faced Schools Due the Spread

of Covid-19 Pandemic

At Palestine, Bashiti and his colleagues (2021) tried to investigate the main obstacles and barriers that face university students while using e-learning. The study applied qualitative approach by distributing 400 questionnaires to students and professors in Algerian, Egyptian, Palestinian, Iraqi universities, and 152 professors and students in the Gaza Strip. The findings showed that the main obstacles included shortage of technical supervisors, less of e-learning and e-exam applications, securing the internet service, unethical student behaviors, and lack of training courses.

UNESCO (2020) conducted a research to find out how distance learning could help students to continue their education. The study applied the qualitative method by interviewing 5 respondents at higher administrative levels in UNESCO, MoE, and UNICEF. In addition to interviewing partners in the immediate response to Covid-19. The findings showed that distance learning had laid the ground for innovative distance learning solutions to ensure inclusive and equitable quality education and to promote lifelong learning opportunities for all in Palestine. Furthermore, the study found that e-learning process had faced many obstacles such as infrastructure, weak internet networks, power outage, insufficient awareness among students and their families towards the importance of e-learning. Add to this, the difficulty that some students faced while accessing online material and the availability of computers or smart phones, especially those living in the most vulnerable areas in Palestine.

Subaih and her colleagues (2021) examined the major obstacles that may face teachers while adopting e-learning due to the spread of Covid-19 pandemic. The researchers prepared a questionnaire and distributed it to 56 teachers at the Palestinian

schools from various stages. The study showed that the main obstacles were related to infrastructure of educational system, technical support, readiness of stakeholders, and remote technological skills and competencies. It also found that e-learning requires having skills and competencies among teachers to deal with digital programs and applications. The study concluded that teachers need in-advance training courses before implementing e-learning process.

2.5.5 Discussion of the Related Studies

Previous studies that tackled e-learning at many environments, including foreign, Arabic and local ones. Most of them explored the importance of e-learning, advantages and disadvantages, and obstacles that may face participants in the learning process.

Some of previous studies focused on the students' attitudes towards distance learning which was an inevitable alternative due to the spread of Covid-19 and its impacts on learning process (Ouadoud, et al., 2021; Raheem & Khan, 2020; Dhawan, 2020). While other studies stressed the implications of applying e-learning on students (Denuyakor, 2020; Allo, 2020; Soni, 2020; Radha, 2020; Pietro, et al., 2020).

Many researchers adopted the descriptive analytical approach in their studies (Ouadoud, et al., 2021; Raheem & Khan, 2020; Dhawan, 2020; Denuyakor, 2020; Allo, 2020). They designed questionnaires or conducted interviews via internet since it was so difficult to distribute them by hand, or to make face-to-face interviews.

The researcher reviewed previous studies and articles to clarify the statement of the problem and determine the study variables including readiness, governmental legislations, school roles, and the effects of Covid-19. On the other hand, the researcher applied the descriptive analytical methodology by preparing three study tools and a

questionnaire, distributed them to students, teachers and school principals at basic schools

in Palestine.

Chapter Three

Methodology

3.1 Introduction

This chapter discussed the research procedures and techniques applied in this study. In particular, it included research design, methodology, data collection, sample and population, study tools, measurements, data analysis, data reliability and validity, and the study variables.

3.2 Research Design

The aim of this study is to investigate the reality of e-learning in the basic schools in Palestine from teachers', students' and school principals' point of view. For this purpose, the researcher adopted the exploratory and the descriptive analysis. The analysis started with the descriptive research in order to report and understand the demographic characteristics of the study sample.

3.3 Methodology

The current studies adopted the quantitative and qualitative approaches to measure and understand the point of views of the selected samples in some of the Palestinian basic schools.

The quantitative methods lead to data that can be represented and summarized into numbers. In the quantitative research, the goal is to understand the general causes of some phenomenon rather than the idiosyncrasies of one particular issue (Blackstone, 2012). In the quantitative research, the researcher makes use of the questionnaires to collect numeric data. Quantitative research is conducted in a more structured environment that

allows the researcher to have control over study environment, variables and research questions (Rutberg and Bouikidis, 2018).

Therefore, the methodological framework of this research is an important step, in the light of which the systematic treatment mechanisms that are determined in all the stages of the research. Realizing the target of the research requires an organized process that depends on a selected approach and an established nature, such as field data collection tools, and methods of analysis.

The descriptive approach was consistent with this study, which explained and analyzed the reality of e-learning. This approach helped in reaching accurate conclusions and integrated practical description of the discussed dimensions.

The research applied complex methodologies while preparing this thesis, where the researcher revised the literature review related to e-learning during COVID-19 pandemic. On the other hand, three other tools were prepared; a questionnaire that was designed and distributed to students, teachers and school principals to find out their perceptions towards e-learning method. In addition, 10 interviews were conducted with teachers and parents, to get profound information about using e-learning during COVID-19.

This thesis used the descriptive and analytical methods. The descriptive method was clarified in the literature review, and from the students and teachers' point of views, while the analytical method was applied to answer the research questions and to test its hypotheses.

3.4 Data Collection

In order to carry out the research, some important data was needed to be collected from the following sources:

- **Secondary Data:** was gathered by assessing the various kinds of books, journals and previous studies on the topic of e-learning in the basic schools in Palestine, in addition to the online articles and researches.

- **Primary Data:** was collected through distributing the study tools (three questionnaires and interviews) which consisted of different parts covering the study variables.

The type of the case study, the three samples, and the quantitative tools in collection of data was used. Finally, the validity and reliability of this research was discussed in this chapter. The methodology steps are presented in the diagram below:
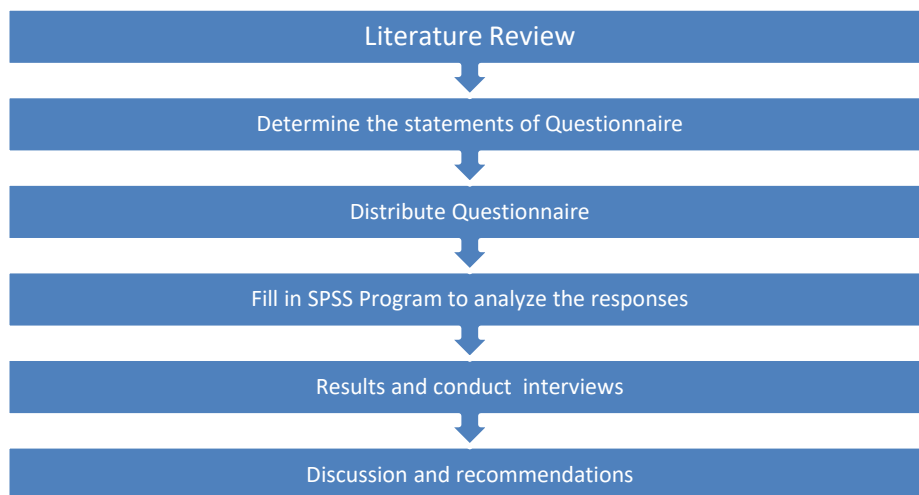
Figure (3.1): Methodology Diagram

3.5 Study Population and Sample

According to MoE statistics, there were1, 873 primary schools, with 1,078,091 registered students and 58,470 male and female teachers at the academic year 2021-2022 (MoE, 2021).

The study followed the simple random sampling technique through randomly targeting six schools, 3 public and 3 private schools. The study was applied on 307 students, 74 teachers, and 10 school principals and administrators to examine the topic.

The submitted questionnaires were analyzed through Statistical Package for the Social Sciences (SPSS) in order to answer the study questions and to test its hypotheses. Means, standard deviation, correlation model and regression model was used to determine the relationship between variables and the effect of independent variables on the dependent one.

The study population consisted of all students at 7th, 8th and 9th grades, teachers who teach these grades, with the school principals in the selected schools in Palestine. The following tables showed sample characteristics.

On the other hand, interviews were conducted with 10 teachers and parents to find out their attitudes towards e-learning process, and find out the main advantages and disadvantages of implementing e-learning in light of Covid-19 pandemic.

3.5.1 Students' Characteristics

Table (3.1): Frequencies and Percentages of the Students' Characteristics

Variable	Category	Frequency	Percentage%
Gender	Male	150	48.9
	Female	157	51.1
Grade	Seventh	89	29.0
	Eighth	108	35.2
	Ninth	110	35.8
Type of school	Public	143	46.6
	Private	164	53.4
Attending classes	School	212	69.1
	Home	72	23.5

Variable	Category	Frequency	Percentage%
	Both	23	7.5
The ability of using technological devices (computers, laptop, mobile, iPads and iPhones)	Excellent	70	22.8
	Very good	131	42.7
	Good	91	29.6
	Moderate	14	4.6
	Weak	1	0.3
Preference application	Zoom	238	77.5
	Google classroom	21	6.8
	Whats App	17	5.5
	Mail	17	5.5
	Others	14	4.6
Total		**307**	**100%**

The findings of table (1) show the following results according to:

- Gender: the answers for both male and female students were close, where female answers came first with 51.1%, while male answers came second with 48.9%.

- Grade: the distributions of students came first for ninth grade with 35.8%, followed by eighth grade with 35.2%, while students at seventh grade came last with 29.0%.

- Type of school: the private schools came first with 53.4%, followed by public ones with 46.6%.

- Attending classes: students preferred to attend classes at school with a rate of 69.1% of acceptance, while attending classes at home came the second choice for students with a rate of 23.5%, and attending classes at school or home (both choices) came third with a rate of 7.5%.

- The students' ability of using the technological devices such as computers, laptops, mobiles, iPads and iPhones were very good with a rate of 42.7% of acceptance, followed by good ability with a rate of 29.6%, and excellent ability came third with a rate of 22.8%, and moderate ability came forth with a rate of 4.6%, while weak ability came fifth and last with only 0.03%.

- Preferred Application: students preferred to use Zoom application with a rate of 77.5%, Google classroom came second with 6.8%, followed by WhatsApp and e-mail with a rate of 5.5%, and finally other applications came last with 4.6%.

3.5.2 Teachers' Characteristics

Table (3.2): Frequencies and Percentages of the Teachers' Characteristics

Variable	Category	Frequency	Percentage%
Gender	Male	20	27.0
	Female	54	73.0
Type of school	Public	35	47.3
	Private	39	52.7
Attending classes	School	57	77.0
	Home	5	6.8
	Both	12	16.2
The ability of using technological devices (computers, laptop, mobile, iPads, iPhones)	Excellent	36	48.6
	Very good	30	40.5
	Good	7	9.5
	Moderate	1	1.4
	Weak	-	-

Preferred application	Zoom	33	44.6
	Google classroom	6	8.1
	Whats App	10	13.5
	Mail	5	6.8
	Others	20	27.0
Total		**74**	**100%**

The findings of table (2) show the following results according to:

- Gender: the answers for female teachers came first with 73.0%, while male teachers had responded with 27.0%.

- Type of school: the private schools came first with 52.7%, followed by the public ones with 47.3%.

- Attending classes: teachers prefer to attend classes at school came with a rate of 77.0% of acceptance, while attending classes at home and school came the second choice with 16.2%, and attending classes at home came third with 6.8%.

- Ability of using technological devices such as computers, laptop, mobile, iPads, and iPhones: teachers' answers showed an excellent ability to use technological devices with 48.6% of acceptance, followed by very good ability with 40.5%, while good ability came the third with 9.5%, and moderate one came forth with only 1.4%.

- Preferred Application: students preferred to use Zoom application with 44.6%, and other applications came second with 27.0%, followed by Whats App with 13.5%, then Google classroom came forth with 8.1% and finally e-mail application came last with 6.8%.

3.5.3 School Principals' Characteristics

Table (3.3): Frequencies and Percentages of the School Principals' Characteristics

Variable	Category	Frequency	Percentage%
Gender	Male	5	50.0
	Female	5	50.0
Type of school	Public	5	50.0
	Private	5	50.0
Attending classes	School	8	80
	Home	0	-
	Both	2	20.0
The ability of using technological devices (computers, laptop, mobile, iPads, iPhones)	Excellent	1	10.0
	Very good	4	40.0
	Good	2	20.0
	Moderate	3	30.0
	Weak	-	-
Preferred application	Zoom	6	60.0
	Google classroom	-	0.0
	Whats App	1	10.0
	Mail	1	10.0
	Others	2	20.0
Total		**10**	**100%**

The findings of table (3) show the following:

- Gender: answers of school principals according to their gender were equal with 50.0% for both males and females.

- Type of school: the findings showed that the distribution of schools was the same for both public and private ones with 50.0% for each.

- Attending classes: most of school principals prefer attending classes at school with 80.0% of acceptance, while 20.0% agreed to attend classes at both school and home. On the other hand, the researcher did not find any answers that showed school principals prefer attending classes at home.

- Ability of using technological devices such as computers, laptop, mobile, iPads, and iPhones: school principals had very good ability of using technological devices with 40.0% of acceptance, and a moderate ability with 30.0%, followed by good ability with 20.0%, and an excellent ability with 10.0%.

  Preferred Application: School principals prefer using Zoom application for e-learning with 60.0% of acceptance, and other applications with 20.0%, while both e-mail and Whats App came third with 10.0%. However, there were no answers that showed school principals prefer using Google classroom application.

3.6 Study Tools

3.6.1 First Tool

The study used survey research in order to assess thoughts, opinions, and feelings of participants through a structured close end questionnaire. Since structured questionnaire guides the respondents not to go astray of the topic while they are easy to implement compared to other methods. Survey research is useful when a researcher aims to explain the features of a large group. It is also better for answering some kinds of research questions more than others (Blackstone, 2012).

The researcher utilized online survey considering the exceptional circumstances of COVID-19 pandemic. The researcher got access to distribute the questionnaire on the targeted sample by distributing questionnaire in the selected schools. The researcher made voice calls with the school administrations and took their approval to send them the URL link of the survey and they showed interest in participation

The study tools consisted of:

- **Student's Questionnaire:** consisted of two parts:

- **Part One:** Socio-demographic characteristics of students comprising gender, grade, school type, ability to use technological devices, preference between attending classes either at school or at home.

- **Part Two:** statements related to the reality of e-learning included 25 statements.

- **Teacher's Questionnaire:** Statements related to the reality of e-learning included 30 statements.

- **School Administrative Questionnaire:** Statements related to the reality of e-learning included 28 statements.

3.6.2 Second Tool

The second tool was interviews, where the researcher prepared some questions in order to find out the teachers and parents' point of view. It included the following questions:

- First Question: Is the e-learning experience suitable for all students'?

- Second Question: Does the student get the same help during e-learning as he gets in the classroom?

- Third Question: Is e- learning enjoys the same efficiency and effectiveness as school learning?

- Forth Question: Did your son / daughter face any problems in dealing with e-learning tools? If the answer is yes, please explain why?

- Fifth Question: Do you think that e- learning develop students' skills just as learning does in school?

- Sixth Question: Through your experience in e-learning, what are the advantages and disadvantages of online learning?

3.7 Measures

There are several scales to measure trends, where the degree of the sample responses was measured according to the Likert scale, because the nature of the study depended on the respondents' point of view towards the reality of e-learning due to COVID-19 pandemic at the basic schools in Palestine. The scale measured the respondents' score, where (yes) answer had 2 degrees, and (satisfied) had 1 degree, while (No) answer had 0 degree. The following table shows the range, percentages and acceptance degree of mean scores.

Table (3.4): Ranges, Percentages and Acceptance Degrees of the Respondents' Scores

Range	Percentages	Acceptance Degree
0 – 0.333	0 – 33.3%	Weak
0.334 – 0.666	33.3 – 66.6 %	Medium
0.667 – 1.00	66.7 – 100 %	Strong

3.8 Data Analysis

The submitted questionnaires were entered by the researcher into the SPSS database and analyzed. Descriptive and inferential analyses were conducted by the researcher. Descriptive analysis was used as the representation of the percentages and means, while inferential analyses were used to test the research questions by using One-Way ANOVA, Independent Samples t-test, Pearson Correlation and Regression tests (Bazilinskyy et al., 2015).

The researcher examined the existence of statistical differences in the targeted sample attributed to their gender, school type by applying the Independent Samples t-test, while the variables of class, the ability of using technological devices, preferred attendance, preferred application were tested via applying One-Way ANOVA test.

Therefore, when there was a significant difference, the researcher conducted a Post-hoc test to find out the differences between the surveyed samples due to a specific independent variable.

3.9 Tools Validity and Reliability

Reliability and availability are two essential challenges that the researcher took into account, and made sure that the research is reliable and valid in all possible ways.

3.9.1 The Validity of the Tools

The validity test relies on what it was supposed to measure and how the test measures:

- The researcher introduced the research tools to the supervisor of the research, to refine them, where some modifications were prepared in order to assure the research tool can achieve the research objectives.

- The researcher utilized online research method in data collection including the quantitative methods.

- The research used many sources in collecting data involving primary and secondary sources of data that are credible and reliable.

3.9.2 The Reliability of the Tools

According to Bazilinskyy and his colleagues (2015), the essential aspects in reliability are objectivity and consistency. In this study, the researcher checked the reliability of the quantitative tool, i.e., the questionnaire, by checking consistency through Cronbach's Alpha test for all three samples which were calculated for all statements in the questionnaire. In addition to categorizing these variables. The following table shows the below results:

Table (3.5): Cronbach's Alpha Test Results for all Three Questionnaires

Part	No. of Statements	Cronbach Alpha
Student's Questionnaire	25	0.746
Teacher's Questionnaire	30	0.760
School Principal's Questionnaire	28	0.863

The findings of table (5) showed that there was a good degree of consistency between the statements of the three study tools, where Cronbach Alpha coefficient for students, teachers and school principals were 0.746, 0.760, and 0.863 in sequence.

3.10 Study Variables

Variables of this study include:

Independent Variables:

- Gender (male, female).

- Grade (seventh, eighth, ninth).

- Type of school (public, private).

- Attending classes (at school, at home, both).

- The ability of using technological devices (excellent, very good, good, moderate, weak).

- Preferred application (Zoom, Google classroom, Whats App, e-mail, others).

- Dependent Variables:

- (readiness towards e-learning)

- Governmental legislations and school roles

- Impact of Covid-19 on the learning process

Chapter Four

Empirical Findings

4.1 Introduction

This chapter presented the results of the study through analyzing the correlation and statistical differences among respondents' answers.

4.2 Interpretation of each Dimension's Items

The researcher used SPSS application for analyzing the respondents' answers, where means, standard deviations, percentages were found to answer the research questions, the following tables show these results.

4.2.1 Section (1): Readiness for Implementing E-learning

Students' Answers

Table (4.1): Means, Standard Deviation and The Percentage of Agreement in the Statement of the First Dimension (Readiness for Implementing E-Learning) from Students' Point of View

No.	statement	Mean	S.D	Percentage
1.	I can attend all classes at home during the lockdown because of the pandemic	1.81	0.51	90.5
2.	I can answer all homeworks while I am at home	1.73	0.59	86.5
3.	My family helps me to operate the electronic device to attend online classes	0.78	0.85	39.0
4.	I can save all lessons on the device	1.36	0.83	68.0

No.	statement	Mean	S.D	Percentage
5.	I can retrieve all lessons saved on the device whenever I need	1.33	0.81	66.5
6.	I can handle the device flexibly	1.85	0.43	92.5
17.	I faces some problems while attending e-classes, especially when the internet connection breaks down, which make me late for online lessons	1.03	0.37	51.5
19.	I have problems with audio recording when attending online lessons	1.83	0.52	91.5
21.	I wasn't well prepared to attend online lessons before the spread of COVID-19	0.98	0.96	49.0
22.	It's hard to attend online lessons at home when my parents are busy	0.48	0.66	24.0
Total Mean of the first dimension (readiness for implementing e-learning from students' views)		1.32	0.22	66.0

Table (4.1) presented the respondents' means for the first dimension of readiness for implementing e-learning from students' point of view, which showed a medium degree with 66.0%. Whereas the highest mean came for statement number (6) that stated (I can handle the device flexibly), with 92.5% with high degree of acceptance. While the lowest answer came for statement number (22) which stated that (It's hard to attend online lessons at home when my parents are busy), with 24.0% with low degree of acceptance.

Teachers' Answers

Table (4.2): Means, Standard Deviation and the Percentage of Agreement in the Statement of the First Dimension (Readiness for Implementing E-learning) from Teachers' Point of View

No.	statement	Mean	S.D	Percentage
1.	I can present lessons at school and from home	1.85	0.46	92.5
2.	I can easily receive students' answers through internet	1.64	0.73	82.0
3.	School administrations forced teachers to present their online classes without any training	1.29	0.87	64.5
4.	I can deal with online applications related to e-learning very well	1.77	0.63	88.5
5.	I record the lesson before uploading it online	1.11	0.95	55.5
6.	I can deal easily with my device (laptop, iPads, iPhones..) to present online classes	1.77	0.61	88.5
7.	I am satisfied with my performance in providing online lessons	1.55	0.78	77.5
15.	I have problems with the lack of equipments and tools that should be used for e-learning classes	1.16	0.97	58.0
16.	Some devices (laptops, phones..) are not compatible for e-classes which caused some troubles in presenting e-learning classes	1.59	0.74	79.5
17.	I face some troubles when accessing the internet	1.16	0.99	58.0
18.	I prefer to use voice notes while presenting online classes	1.37	0.85	68.5

No.	statement	Mean	S.D	Percentage
19.	I think the cost of internet package is too high	1.68	0.69	84.0
Total Mean of the first dimension (readiness for implementing e-learning from teachers' views)		1.49	0.35	74.5

Table (4.2) revealed the respondents' means for the first dimension of readiness for implementing e-learning from teachers' point of view, which showed a high degree of acceptance with 74.5%, where the highest mean came for statement number (1) that stated (I can present lessons at school and from home), with 92.5% with high degree of acceptance, while the lowest answer came for statement number (5) which stated that (record the lesson before uploading it online), with 55.5% with medium degree of acceptance.

School Principals' Answers

Table (4.3): Means, Standard Deviation and the Percentage of Agreement in the Statement of the First Dimension of Readiness for Implementing E-Learning from School Principals' Point of View

No.	statement	Mean	S.D	Percentage
2.	You trained your teachers to acquire skills to use online classes skills	1.00	0.94	50.0
3.	Your school is fully prepared to introduce online classes	1.30	0.82	65.0
5.	The school has a good internet connection suitable download capacity for e-learning classes	1.20	0.92	60.0
13.	Required technology is available at school for e-learning classes	1.40	0.84	70.0

No.	statement	Mean	S.D	Percentage
14.	School administration has the proper knowledge of the suitable devices (laptops, phones..) that are compatible with online classes	1.40	0.69	70.0
16.	School administration used to record all online classes and revise them to make sure that the teaching process is working effectively	0.80	0.63	40.0
17.	The cost of internet fees, that the school pays, is too high	0.90	0.74	45.0
Total Mean of the first dimension (readiness for implementing e-learning from school principals' views)		1.14	0.49	57.0%

Table (4.3) showed that the respondents' means for the third dimension of the effect of Covid-19 on the learning process from school principal's point of view, was of a medium degree of acceptance with 57.0%, where the highest mean came for statement number (13) that stated required technology is available at school for e-learning classes, and statement number (14) which stated that school administration has the proper knowledge of the suitable devices (laptops, phones…) that are compatible with online classes with 70.0% for both with high degree of acceptance, while the lowest answer came for statement number (16) which stated that (school administration used to record all online classes and revise them to make sure that the teaching process in working effectively, with 40.0% with low degree of acceptance.

4.2.2 Section (2): Governmental Legislations and School Roles

Students' Answers

Table (4.4): Means, Standard Deviation and the Percentage of Agreement in the
Statement of the Second Dimension (Governmental Legislations and School Roles)
from Students' View

No.	statement	Mean	S.D	Percentage
13.	I think that imposing e-learning by the Palestinian MoE is inappropriate for primary school students.	1.53	0.53	76.5
14.	Teachers used to explain how to deal with devices to attend e-learning classes in advance	1.82	0.45	91.0
15.	Teachers explain to students how to store online lessons on their devices	0.88	0.40	44.0
16.	Teachers explain how to submit home works electronically	0.90	0.36	45.0
18.	Teachers use several apps during online lessons	0.19	0.53	9.5
Total Mean of the second dimension (governmental legislations and school roles from students' views)		1.07	0.22	53.5

Table (4.4) expressed the respondents' means for the second dimension (governmental legislations and school roles) from students' point of view, which showed a medium of 53.5%, where the highest mean came for statement number (14) that stated (teachers used to explain how to deal with devices to attend e-learning classes in advance), with 91.0% with high degree of acceptance, while the lowest answer came for statement number (18) which stated that teachers use several apps during online lessons, with 9.5% with low degree of acceptance.

Teachers' Answers

Table (4.5): Means, Standard Deviation and the Percentage of Agreement in the Statement of the Second Dimension (Governmental Legislations and School Roles) from the Students' Point of View

No.	statement	Mean	S.D	Percentage
20.	I prefer that the school administration pays for internet fees for both teachers and students	1.47	0.82	73.5
25.	Policy, procedures and instructions of MoE are not suitable for all teachers	1.81	0.52	90.5
26.	The enforcement of e-learning by MoE caused weak learning outcomes of students	1.88	0.40	94.0
Total Mean of the second dimension (governmental legislations and school roles from teachers' views)		1.72	0.41	86.0

Table (4.5) expressed respondents' means for the second dimension (governmental legislations and school roles) from teachers' point of view, which showed a high degree with 86.0%, where the highest mean came for statement number (26) that stated (the enforcement of e-learning by MoE caused weal learning outcomes of students), with 94.0% with high degree of acceptance, while the lowest answer came for statement number (20) which stated that (I prefer that the school administration pays for internet fees for both teachers and students), with 73.5% with high degree of acceptance.

School Principals' Answers

Table (4.6): Means, Standard Deviation and the Percentage of Agreement in the Statement of the Second Dimension (Governmental Legislations and School Roles) from School Principals' Point of View

No.	statement	Mean	S.D	Percentage
1.	The school administration allows teachers to present online classes at school and home	1.80	0.63	90.0
4.	The administration obliged all teachers to introduce their online classes through one common application	1.60	0.52	80.0
6.	School administration shares personal internet fees with teachers	0.20	0.63	10.0
7.	Practical teaching has been delayed to be presented during face-to-face classes	1.20	0.79	60.0
8.	School administration follow-up teachers and students attendance of online classes	1.20	0.79	60.0
9.	The administration prepared extracurricular activities with teachers to be achieved while turning back to face-to-face learning	1.30	0.68	65.0
23.	The legislations of MoE are not suitable for your school	0.80	0.63	40.0
24.	You think that MoE is responsible for the weak learning outcomes of students because of the sudden enforcement of e-learning without any previous preparations	1.00	0.67	50.0

No.	statement	Mean	S.D	Percentage
Total mean of the second dimension (governmental legislations and school roles from school principals' views)		1.29	0.37	64.50%

Table (4.6) expressed respondents' means for the second dimension (governmental legislations and school roles) from school principals' point of view, which showed a medium degree with 64.5%, where the highest mean came for statement number (1) that stated (The school administration allows teachers to present online classes at school and home), with 90.0% with high degree of acceptance, while the lowest answer came for statement number (6) which stated that (School administration shares personal internet fees with teachers), with 10.0% with low degree of acceptance.

4.2.3 Section (3): Effects of COVID-19 on Learning Process

Students' Answers

Table (4.7): Means, Standard Deviation and the Percentage of Agreement in the Statement of the Third Dimension (Effect of Covid-19 on Learning Process) from Students' View

No.	statement	Mean	S.D	Percentage
7.	I am happy to attend lessons at home	1.75	0.61	87.5
8.	E-learning kept me away from my classmates	1.74	0.63	87.0
9.	I feel that the discussion is weak during e-learning classes	1.51	0.58	75.5
10.	I think that e-learning is an indirect educational approach	1.89	0.39	94.5

No.	statement	Mean	S.D	Percentage
11.	E-learning isolates learners from each other	1.86	0.48	93.0
12.	E-learning develops self-learning skills	1.84	0.48	62.0
20.	COVID-19 pandemic has forced us to attend lessons from home.	1.94	0.28	97.0
23.	I lost motivation to learn because of the problems caused by COVID-19	1.09	0.75	54.5
24.	I feel stressed because of COVID-19	1.35	0.77	67.5
25.	COVID-19 has changed the way I interact with teachers	0.33	0.63	16.5
Total mean of the third dimension (effect of COVID-19 on learning process from students' views)		1.53	0.21	76.5

Table (4.7) expressed respondents' means for the third dimension (effect of Covid-19 on learning process) from students' point of view, which showed a high degree with 76.5%, where the highest mean came for statement number (20) that stated (Covid-19 pandemic has forced us to attend lessons from home), with 97.0% with high degree of acceptance, while the lowest answer came for statement number (25) which stated that (Covid-19 has changed the way I interact with teachers), with 16.5% with low degree of acceptance.

Teachers' Answers

Table (4.8): Means, Standard Deviation and the Percentage of Agreement in the Statement of The Third Dimension (Effect of Covid-19 on Learning Process) from Teachers' Point of View

No.	statement	Mean	S.D	Percentage
8.	E-learning makes knowledge wider	0.61	0.81	30.5
9.	E-learning is not suitable for practical classes	1.43	0.78	71.5
10.	Some students cannot attend online classes	1.82	0.51	91.0
11.	Online classes delayed many extracurricular activities	1.89	0.39	94.5
12.	I think that web-based teaching is important for students	1.03	0.89	51.5
13.	I feel lack of discussions while presenting online lessons	1.43	0.88	71.5
14.	Teachers have low degree of expectations for e-learning outcomes	1.70	0.64	85.0
21.	I face lack of effective communication skills among teachers and students	1.31	0.89	65.5
22.	It's better to stop e-learning	1.46	0.76	73.0
23.	I think that online learning environment is not motivating	1.58	0.70	79.0
24.	It is difficult to continue e-learning process for long term	1.88	0.44	94.0
27.	COVID-19 caused troubles for the educational process	1.97	0.16	98.5

No.	statement	Mean	S.D	Percentage
28.	E-learning is very helpful through COVID-19 pandemic	1.37	0.87	68.5
29.	COVID-19 caused stress and anxiety among teachers	1.91	0.38	95.5
30.	COVID-19 caused an inequality between students because some of them do not have on-line skills	1.93	0.30	96.5
Total mean of the third dimension (effect of COVID-19 on learning process from teachers' views)		1.56	0.19	78.0

Table (4.8) expressed respondents' means for the third dimension (effect of Covid-19 on learning process) from teachers' point of view, which showed a high degree with 78.0%, where the highest mean came for statement number (27) that stated (Covid-19 caused troubles for educational process), with 98.5% with high degree of acceptance, while the lowest answer came for statement number (8) which stated (e-learning makes knowledge wider), with 30.5% with low degree of acceptance.

School Principals' Answers

Table (4.9): Means, Standard Deviation and the Percentage of Agreement in the Statement of the Third Dimension (Effect of Covid-19 on Learning Process) from School Principals' Point of View

No.	statement	Mean	S.D	Percentage
10.	You found that web-based teaching is important for students	1.60	0.52	80.0

No.	statement	Mean	S.D	Percentage
11.	You received many complaints from parents because e-learning process is difficult for their children	1.70	0.68	85.0
12.	You found lack of clear learning expectations from teachers	1.70	0.68	85.0
18.	You found lack of effective communication skills among teachers and students	1.10	0.74	55.0
19.	You prefer online learning should stop	1.50	0.85	75.0
20.	You think that online learning environment is not motivating	1.20	0.92	60.0
21.	You found weakness of teachers' personal motivation at online learning	1.60	0.69	80.0
22.	It is difficult to continue e-learning process for long term	1.80	0.63	90.0
25.	COVID-19 caused troubles in teaching process	2.00	0.00	100.0
26.	e-learning is very helpful through COVID-19 pandemic days	1.70	0.48	85.0
27.	COVID-19 caused stress and anxiety among teachers and students	1.70	0.48	85.0
28.	COVID-19 weakened interactions between teachers and students	1.30	0.52	65.0

No.	statement	Mean	S.D	Percentage
29.	COVID-19 caused an inequality between students because some of them do not have on-line skills	1.40	0.52	70.0
Total mean of the third dimension (effect of Covid-19 on learning process from school principals' views)		1.56	0.26	78.8%

Table (4.9) expressed respondents' means for the third dimension (effect of Covid-19 on learning process) from school principals' point of view, which showed a high degree with 78.8% of acceptance, where the highest mean came for statement number (25) that stated (Covid-19 caused troubles in teaching process), with 100% with high degree of acceptance, while the lowest answer came for statement number (18) which stated that (you found lack of effective communication skills among teachers and students), with 55.0% with medium degree of acceptance.

4.3 Testing Research Hypotheses

H1: There is No Statistical Relationship At α≤0.05 Significant Level between the Respondents' Point of View Towards Their Readiness to Implement E-learning and The Effects of Covid-19 Pandemic at the Palestinian Basic Schools.

To test the first hypothesis, the researcher applied Pearson correlation to find out the degree of this relationship, the following table shows this result.

Table (4.10): Pearson Correlation Applied on the First Hypothesis

Respondents	No.	Pearson Correlation	Sig.
Students' answers	307	0.346**	0.000

Correlation between	Teachers' answers	74	0.154	0.190
respondents' readiness and	School Principals'	10	0.434	0.210
the effect of COVID-19 on	answers			
learning process				

** Significant at 0.01 significance level.

The findings of table (4.10) showed that there was a strong statistical relationship between the students' readiness for implementing e-learning and the effects of Covid-19 on the learning process, where R=0.346 at 0.000 significance level. The findings showed that there was no statistical relationship between both teachers and school principals' readiness for implementing e-learning and the effects of Covid-19 on learning process, where R=0.154, 0.434 at 0.190, 0.210 significance levels in sequence.

H2: There is No Statistical Relationship at α≤0.05 Significant Level between Respondents' Point of View Towards the Respondents' Readiness of Implementing E-Learning and the Governmental Legislations / School Roles Due to Covid-19 at the Palestinian Basic Schools.

To test the second hypothesis, the researcher applied Pearson correlation to find out the degree of this relationship, the following table shows this result.

Table (4.11): Pearson Correlation Applied on the Second Hypothesis

	Respondents	No.	Pearson Correlation	Sig.
Correlation between	Students' answers	307	0.272**	0.000
respondents' readiness and	Teachers' answers	74	0.160	0.174

the governmental legislations and school roles	School answers	Principals'	10	0.804**	0.005	

** Significant at 0.01 significance level.

The findings of table (4.11) showed that there was a strong statistical relationship between both students' and school principals' readiness for implementing e-learning and the effects of Covid-19 on learning process, where R=0.272, 0.804 at 0.000, 0.005 significance levels in sequence, while the findings showed that there was no statistical relationship at 0.05 significant level between teachers' readiness for implementing e-learning and the effects of Covid-19 on learning process, where R=0.160 at 0.174 significance level.

H3: There are No Statistical Differences at α≤0.05 Significant Level Among the Respondent's Point of View Towards the Reality of E-Learning at the Palestinian Basic Schools Due to their Demographic Characteristics of Gender, School Type, And Attending Classes.

To test the third hypothesis, the following sub-hypotheses were derived.

H3-1: There are No Statistical Differences at α≤0.05 Significant Level between the Respondent's Point of View Towards the Reality Of E-Learning at the Palestinian Basic Schools Due to Their Gender.

To test hypothesis H3-1, the researcher applied independent sample t-test.

The table below shows these results

Table (4.12): Independent Sample T-test Applied on Hypothesis H3-1

Variable	Respondents	Categories	No.	Mean	S.D	T-value	Sig.
Respondents' readiness	Students	Male	150	1.36	0.23	3.186*	0.002
		Female	157	1.28	0.19		

Variable	Respondents	Categories	No.	Mean	S.D	T-value	Sig.
	Teachers	Male	20	1.49	0.27	0.121	0.904
		Female	54	1.49	0.37		
	School Principals	Male	5	1.05	0.43	0.541	0.603
		Female	5	1.23	0.58		
Governmental legislations and school roles	Students	Male	150	1.09	0.19	2.140*	0.033
		Female	157	1.04	0.25		
	Teachers	Male	20	1.67	0.39	0.695	0.489
		Female	54	1.74	0.41		
	School Principals	Male	5	1.20	0.33	0.732	0.485
		Female	5	1.38	0.42		
Effects of Covid-19 on learning process	Students	Male	150	1.57	0.20	3.200*	0.002
		Female	157	1.49	0.21		
	Teachers	Male	20	1.50	0.21	1.486	0.142
		Female	54	1.57	0.19		
	School Principals	Male	5	1.65	0.19	1.037	0.330
		Female	5	1.48	0.34		

* Significant at 0.05 significance level

The findings of table (4.12) showed that:

- **Respondents' Readiness:** according to this dimension, the findings showed that there were statistical differences at 0.05 between students' answers towards their readiness for implementing e-learning due to Covid-19 pandemic according to their gender, where t-calculated = 3.186 and its higher that the value of t-tabulated at 0.002 significance level. These differences were in favor of male students, it also showed

that there were no statistical differences at 0.05 significance level between both teachers and school principals' readiness towards the implementation of e-learning due to the spread of Covid-19 pandemic according to their gender, where t-calculated=0.121, 0.541 and both of them were higher than the value of t-tabulated at 0.904, 0.603 significance level in sequence.

- **Governmental Legislations and School Roles:** the findings showed that there were statistical differences at 0.05 between the students' point of view towards the governmental legislations and school role to implement e-learning due to the spread of Covid-19 according to their gender, where t-calculated = 2.140 and it is higher than t-tabulated at 0.033, these differences were in favor of male students. On the other hand, the findings showed that there were no statistical differences at 0.05 significance level between both teachers and school principals towards the governmental legislations and school roles to implement e-learning due to the spread of Covid-19 pandemic according to their gender, where t-calculated = 0.695, 0.732 and they are lower than t-tabulated values at 0.489, 0.485 significance level in sequence.

- **The Effect of Covid-19 on the E-Learning Process:** the findings showed that there were a statistical significant differences at 0.05 significance level between the students' views towards the effect of Covid-19 on e-learning process according to their gender, where t-calculated = 3.200 and it is higher than t-tabulated at 0.002 significance level, while there are no statistical differences between both teachers and school principals views towards the effect of Covd-19 pandemic on e-learning process according to their gender, where t-calculated = 1.486, 1.037 and both of them were lower than t-tabulated at 0.142, 0.330 significance level in sequence.

H3-2: There are No Statistical Differences at α≤0.05 Significant Level Among Respondent's Point of View Towards the Reality of E-Learning at the Palestinian Basic Schools Due to their School Type.

To test hypothesis H3-2, the researcher applied independent sample t-test, the following table shows the below results

Table (4.13): Independent Sample T-test Applied on Hypothesis H3-2

Variable	Respondents	Categories	No.	Mean	StD	t-value	Sig.
Respondents' readiness	Students	Public	143	1.37	0.25	4.460*	0.000
		Private	164	1.27	0.17		
	Teachers	Public	35	1.58	0.34	1.945	0.056
		Private	39	1.42	0.34		
	School Principals	Public	5	0.90	0.53	1.676	0.132
		Private	5	1.34	0.34		
Governmental legislations and school roles	Students	Public	143	1.09	0.20	2.596*	0.010
		Private	164	1.03	0.23		
	Teachers	Public	35	1.78	0.32	1.214	0.229
		Private	39	1.67	0.47		
	School Principals	Public	5	1.23	0.49	0.514	0.621
		Private	5	1.35	0.22		
Effects of COVID-19 on learning process	Students	Public	143	1.56	0.24	2.254*	0.025
		Private	164	1.51	0.18		
	Teachers	Public	35	1.53	0.21	0.901	0.370
		Private	39	1.57	0.19		
	School Principals	Public	5	1.57	0.20	0.089	0.932
		Private	5	1.55	0.33		

* Significant at 0.05 significance level

The findings of table (4.13) showed that:

- **Respondents' Readiness:** according to this dimension, the findings showed that there were a statistical differences at 0.05 between students' answers towards their readiness for implementing e-learning due to Covid-19 pandemic according to their school type, where t-calculated = 4.460 and its higher that the value of t-tabulated at 0.000 significance level, where these difference were in favor of male students, it also showed that there were no statistical differences at 0.05 significance level between both teachers and school principals' readiness towards the implementation of e-learning due to the spread of Covid-19 pandemic according to their school type, where t-calculated= 1.945, 1.676 and both of them are higher than the value of t-tabulated at0.056, 0.132 significance level.

- **Governmental Legislations and School Roles:** the findings showed that there were a statistical differences at 0.05 between students' point of view towards the governmental legislations and school role to implement e-learning due to the spread of Covid-19 according to their school type, where t-calculated = 2.596 and it is higher than t-tabulated at 0.010. These differences were in favor of male students. It also showed that there were no statistical differences at 0.05 significance level between both teachers and school principals towards the governmental legislations and school roles to implement e-learning due to the spread of Covid-19 pandemic according to their school type, where t-calculated = 1.214, 0.514 and they are lower than t-tabulated values at 0.229, 0.621 significance level in sequence.

- **The effect of Covid-19 on the e-learning process:** the findings showed that there were a statistical significant differences at 0.05 significance level between students' views towards the effect of Covid-19 on e-learning process according to their school type, where t-calculated = 2.254 and it is higher than t-tabulated at 0.025 significance

level. The results showed that there were no statistical differences between both teachers and school principals' views towards the effect of Covd-19 pandemic on e-learning process according to their school type, where t-calculated = 0.901, 0.089 and both of them are lower than t-tabulated at 0.370, 0.932 significance level.

H3-3: There are No Statistical Differences at α≤0.05 Significant Level Among Respondent's Point of View Towards the Reality of E-Learning at the Palestinian Basic Schools Due to their Attending Classes.

To test the hypothesis H3-3, the researcher applied One-Way ANOVA test, the following table show these results

Table (4.14): One-Way ANOVA Test Applied at Hypothesis H3-3

Dimension	Respondents	Item	Sum of Squares	df	Mean Square	F-value	Sig.
Respondents' readiness	Students	Between groups	0.911	2	0.455	10.467*	0.000
		Within groups	13.228	304	0.044		
		Total	14.139	306			
	Teachers	Between groups	0.058	2	0.029	0.238	0.789
		Within groups	8.607	71	0.121		
		Total	8.665	73			
	School principals	Between groups	0.452	1	0.452	2.102	0.185
		Within groups	1.719	8	0.215		
		Total	2.170	9			
Governmental legislations	Students	Between groups	0.288	2	0.144	2.980	0.052
		Within groups	14.715	304	0.048		
		Total	15.003	306			

Dimension	Respondents	Item	Sum of Squares	df	Mean Square	F-value	Sig.
and school role	Teachers	Between groups	0.552	2	0.276	1.711	0.188
		Within groups	11.454	71	0.161		
		Total	12.006	73			
	School principals	Between groups	0.019	1	0.019	0.127	0.730
		Within groups	1.201	8	0.150		
		Total	1.220	9			
Effect of Covid-19 on e-learning process	Students	Between groups	1.326	2	0.663	16.525*	0.000
		Within groups	12.198	3.4	0.040		
		Total	13.524	306			
	Teachers	Between groups	0.517	2	0.259	8.107*	0.001
		Within groups	2.266	71	0.032		
		Total	2.783	73			
	School principals	Between groups	0.072	1	0.072	1.076	0.330
		Within groups	0.533	8	0.067		
		Total	0.604	9			

* Significant at 0.05 significant level.

To find out these statistical differences, LSD test was applied, the following table shows these results.

Table (4.15): Results of LSD Test Applied on Hypothesis H3-3

Dimension	Respondents		At school	At home	Both
Readiness	Students	At school		0.06	0.46*
		At home	-0.06		0.39

Dimension	Respondents		At school	At home	Both
		Both	-0.46*	-0.39	
Effect of COVID-19 on e-learning process	Students	At school		0.05	0.57*
		At home	-0.052		0.52*
		Both	-0.57*	-0.52	
	Teachers	At school		0.32*	0.09
		At home	-0.32*		-0.24
		Both	-0.09	0.24	

The findings of tables (4.14) and (4.15) showed that:

- **Respondents' Readiness:** according to this dimension, the findings showed that there were a statistical differences at 0.05between students' answers towards their readiness for implementing e-learning due to COVID-19 pandemic according to their preference to attend classes, where F-calculated = 10.467 and its higher that the value of F-tabulated at (0.000) significance level, where these difference were in favor of attendance at school, it also showed that there were no statistical differences at 0.05 significance level between both teachers and school principals' readiness towards the implementation of e-learning due to the spread of Covid-19 pandemic according to their preference to attend classes, where F-calculated = 0.238, 2.102 and both of them are lower than the value of t-tabulated at 0.0789, 0.185 significance level.

- **Governmental Legislations and School Roles:** the findings showed that there were no statistical differences at 0.05 between the students', teachers' and school principals' point of view towards the governmental legislations and school role to implement e-learning due to the spread of Covid-19 according to their preference to attend classes,

where F-calculated = 2.980, 1.711, 0.127 and all of them are lower than F-tabulated at 0.052, 0.188, 0.730 significant levels.

- **The Effect of Covid-19 on the e-learning process:** The findings showed that there were statistical significant differences at 0.05 significance level between both the students and teachers' point of view towards the effect of Covid-19 on the e-learning process according to their preference to attend classes, where t-calculated = 16.525, 8.107 and both of them are higher than t-tabulated at 0.000, 0.001 significance levels in sequence. In addition, the findings showed that there were no statistical differences between school principals' views towards the effect of Covd-19 pandemic on e-learning process according to their preference to attend classes, where t-calculated = 1.076 and it is lower than t-tabulated at 0.330 significance level.

H3-4: There are No Statistical Differences at α≤0.05 Significant Level Among Respondent's Views Towards the Reality of E-Learning at The Palestinian Basic Schools Due to their Ability of Using Technological Devices.

To test the hypothesis H3-4, the researcher applied One-Way ANOVA test. The following table shows the below results

Table (4.16): One-Way ANOVA Test Applied at Hypothesis H3-4

Dimension	Respondents	Item	Sum of Squares	df	Mean Square	F-value	Sig.
Respondents' readiness	Students	Between groups	0.275	4	0.069	1.496	0.203
		Within groups	13.864	302	0.046		
		Total	14.139	306			
	Teachers	Between groups	1.321	3	0.440	4.198*	0.009
		Within groups	7.344	70	0.105		

Dimension	Respondents	Item	Sum of Squares	df	Mean Square	F-value	Sig.
		Total	8.665	73			
	School principals	Between groups	1.840	3	0.613	4.124	0.057
		Within groups	0.331	6	0.055		
		Total	2.170	9			
Governmental legislations and school roles	Students	Between groups	0.314	4	0.078	1.613	0.171
		Within groups	14.689	302	0.049		
		Total	15.003	306			
	Teachers	Between groups	0.227	3	0.076	0.449	0.719
		Within groups	11.779	70	0.168		
		Total	12.006	73			
	School principals	Between groups	0.886	3	0.295	4.293	0.054
		Within groups	0.335	6	0.056		
		Total	1.220	9			
Effect of Covid-19 on e-learning process	Students	Between groups	0.037	4	0.009	0.210	0.933
		Within groups	13.487	302	0.045		
		Total	13.524	306			
	Teachers	Between groups	0.060	3	0.020	0.518	0.671
		Within groups	2.723	70	0.039		
		Total	2.783	73			
	School principals	Between groups	0.383	3	0.128	3.457	0.092
		Within groups	0.221	6	0.037		

Dimension	Respondents	Item	Sum of Squares	df	Mean Square	F-value	Sig.
		Total	0.604	9			

* Significant at 0.05 significant level.

To find out these statistical differences, LSD test was applied, the following table shows these results.

Table (4.17): Results of LSD Test Applied on Hypothesis H3-4

Dimension	Respondents		Excellent	Very good	good	Moderate
Readiness	Teachers	Excellent		0.32	0.43*	0.39
		Very good	-0.3		0.39*	0.36
		Good	-0.43*	-0.39*		-0.04
		Moderate	-0.39	-0.36	0.034	

The findings of tables (4.16) and (4.17) showed that:

- **Respondents' Readiness:** according to this dimension, the findings showed that there were a statistical differences at 0.05between teachers' answers towards their readiness for implementing e-learning due to Covid-19 pandemic according to their ability of using technological devices, where F-calculated = 4.198 and its higher than the value of F-tabulated at 0.009 significance level. These differences were in favor of excellent and very good abilities. It also showed there were no statistical differences at 0.05 significance level between both students and school principals' readiness towards the implementation of e-learning due to the spread of Covid-19 pandemic according to ability of using technological devices, where F-calculated = 1.496, 4.124 and both of them are lower than the value of F-tabulated) at 0.203, 0.057 significance levels.

- **Governmental Legislations and School Role:** the findings showed that there were no statistical differences at 0.05 between the respondents' (students, teachers and school principals) point of views towards the governmental legislations and school role to implement e-learning due to the spread of Covid-19 according to their ability of using technological devices, where F-calculated = 1.613, 0.449, 4.293 and all of them are lower than F-tabulated at 0.171, 0.719, 0.054 significant levels.

- **The Effect of Covid-19 on e-learning process:** The findings showed that there were no statistical significant differences at 0.05 significance level between all respondents' (students, teachers and school principals) point of view towardss the impact of Covid-19 on e-learning process according to their ability of using technological devices, where F-calculated = 0.210, 0.518, 3.457 and all of them are lower than F-tabulated at 0.933, 0.671, 0.092 significance levels in sequence.

H3-5: There are No Statistical Differences at α≤0.05 Significant Level Among the Respondent's Point of View Towards the Reality of E-Learning at the Palestinian Basic Schools Due to their Preferred Applications.

To test hypothesis H3-5, the researcher applied One-Way ANOVA test, the following table show these results

Table (4.18): One-Way ANOVA Test Applied at Hypothesis H3-5

Dimension	Respondents	Item	Sum of Squares	df	Mean Square	F-value	Sig.
Respondents' readiness	Students	Between groups	0.108	4	0.027	0.583	0.675
		Within groups	14.030	0.302	0.046		
		Total	14.139	306			
	Teachers	Between groups	0.179	4	0.045	0.364	0.833

Dimension	Respondents	Item	Sum of Squares	df	Mean Square	F-value	Sig.
		Within groups	8.486	69	0.123		
		Total	8.665	73			
	School principals	Between groups	1.600	3	0.533	3.611	0.074
		Within groups	0.570	6	0.095		
		Total	2.170	9			
Governmental legislations and school roles	Students	Between groups	0.239	4	0.060	1.224	0.301
		Within groups	14.764	302	0.049		
		Total	15.003	306			
	Teachers	Between groups	0.388	4	0.097	0.576	0.681
		Within groups	11.618	69	0.168		
		Total	12.006	73			
	School principals	Between groups	0.887	3	0.296	4.322	0.054
		Within groups	0.333	6	0.056		
		Total	1.220	9			
Effect of Covid-19 on e-learning process	Students	Between groups	0.255	4	0.064	1.448	0.218
		Within groups	13.270	302	0.044		
		Total	13.524	306			
	Teachers	Between groups	0.083	4	0.021	0.533	0.712
		Within groups	2.700	69	0.039		
		Total	2.783	73			
		Between groups	0.043	3	0.014	0.153	0.924

Dimension	Respondents	Item	Sum of Squares	df	Mean Square	F-value	Sig.
	School principals	Within groups	0.561	6	0.094		
		Total	0.604	9			

The findings of table (4.18) showed that:

- **Respondents' Readiness:** according to this dimension, the findings showed that there were no statistical differences at 0.05 between all respondents' (students, teachers and school principals) answers towards their readiness for implementing e-learning due to Covid-19 pandemic according to the preferred application, where F-calculated = 0.583, 0.364, 3.611 and all of them are lower than the value of F-tabulated at 0.675, 0.833, 0.074 significance levels.

- **Governmental Legislations and School Roles:** the findings showed that there were no statistical differences at 0.05 between the respondents' (students, teachers and school principals) point of view towards the governmental legislations and school role to implement e-learning due to the spread of Covid-19 according to their preferred application, where F-calculated = 1.224, 0.576, 4.322 and all of them are lower than F-tabulated at 0.301, 0.681, 0.054 significant levels.

- **The Effect of Covid-19 on the e-learning process:** the findings showed that there were no statistical significant differences at 0.05 significance level between all respondents' (students, teachers and school principals) point of views towards the effect of Covid-19 on e-learning process according to their preferred applications, where F-calculated = 1.448, 0.533, 0.153 and all of them are lower than F-tabulated at 0.218, 0.712, 0.924 significance levels in sequence.

4.4 Interview Results

The researcher interviewed 10 teachers and parents, and then analyzed their responses according to the interviewed questions:

Q1: Is E-Learning Experience Suitable for All Students?

E-learning is a phenomenon which evolved recently. As for teachers, there are supporters and opponents and the causes vary between them. Those who support online learning claim that it can be conducted without the time and place restrictions. In addition, it gives students the ability to understand, discuss and negotiate confidently. On the other hand, those who oppose-learning claim that it can't be as effective as face to face learning. I personally agree with those who oppose e-learning because I can't be sure if the teacher pays attentions to students in a full manner. Parents believe that e-learning is suitable for all students, but those who apply it have to consider the age factor. Younger students may benefit more than older ones.

In general, the motivation to learning when compared to younger children in the primary stage is stronger than those in the secondary stage. This was shown when one parent of the interviewers who has a son in the 11th grade and a daughter in the 6th grade talked about his experience in this regard. The father said that most of his sons' peers skipped attending online classes and they had to find a job to help their parents because of the hard economic situation. However, his daughter and her classmates attended all online classes.

Furthermore, the majority of students don't have adequate environment for e-learning at their houses. Computers, laptops, smart phones and excellent Internet connection aren't available in most houses. Employing technology at houses required training and equipment which most families could not afford to maintain.

Personally, I believe that e-learning isn't suitable for all students because when applying it we have to take into consideration the different situations among learners. Some students may benefit immensely from it while others may gain minimal knowledge from it.

Q2: Does E- Learning Enjoy the Same Efficiency and Effectiveness as Face to Face School Learning? and Do Students Receive the Same Help and Attention un E-learning When Compared to Face to Face School Learning?

As a teacher, I think that the abilities of some students vary in mastering technology particularly the students in the primary stage. In addition, some students cannot understand without the direct follow up of the teacher.

During the interviews, I asked parents if they think that the students get the same help during e-learning as he/she gets in the classroom. The answers stated that face-to-face learning offered more help to students to interact with their teachers. Facial expressions, gestures and clues, all of that make students understand more. The teacher's concern in the online learning usually is focused on finishing the subjects in the curriculum more than on students' understanding of ideas and concepts. The opportunity for students to participate in classes and lessons shrinks in the online learning. It is taken for granted that in the learning and teaching process, the student is the core or the center of the learning teaching process. But in the online learning, the teacher becomes the core of the process, the teacher sends and the students receive.

When analyzing the answers of the parents, they stressed that it is very hard to compare between e-learning and face to face learning. Parents wanted their children to be able to discuss, inquire and ask questions during classes.

As a parent, I believe that in face to face learning, there are more chances for my kids to ask about unknown ideas. In the online courses, I feel that my kids are shy to ask about anything.

The teacher can't always check all the students' answers in homeworks for many reasons in online learning. Firstly, some students can't afford purchasing smart devices such as iPhones and iPads to enable them apply e-learning at homes. Secondly, teachers won't know if the student is doing the homework by him/herself and cheating became a piece of cake when implementing online exams. Finally, the teacher can't really recognize in case students understand and grasp information. In conclusion, online learning is not as efficient as being on campus and face to face learning.

Q3: Did Your Son/Daughter Face any Problems in Dealing With E-learning Tools? If the Answer is Yes, Please Explain Why?

The majority of parents agreed that students faced problems in handling smart devices and applications. One of the respondents mentioned that her son faced many problems in e-learning experience. The teams application was uploaded on his mobile phone which made him lose his concentration and attention in the e-learning. In addition, many teachers created learning groups on Instagram, Facebook, Tiktok and Whatsapp and when communicating via these applications, my son loses his attention and is distracted by his friends. My son couldn't separate between social media time and learning time. As for my 12 years old daughter, she was unable to deal properly with e-learning at first.

Parents faced few problems when trying to help their children to study online. I believe that students in their senior years were capable of handling e-learning easier than students in primary phases.

E-learning is an efficient and effective approach when good internet connection, smart devices and a quite place are provided. However, we can't ignore that some students faced difficulties when dealing with online programs and applications.

Q4: Do You Think that E-Learning Develop Students' Skills Just as on Campus Learning Does? and What are the Advantages and Disadvantages of Online Learning?

Online learning can be useful for students in many aspects. For example, it develops their way of thinking, analyzing and digging for information. Furthermore, e-learning made them self-independent, feel more confident when discussing and elaborating. Finally, e-learning can activate the concept of self learning.

However, e-learning is less efficient when compared with school learning. Nevertheless, it is the best solution for emergency situations, lockdowns and closures for long periods. Thus, it is better for our children to have classes online than staying without learning,

I think that everything has advantages and disadvantages. Through my experience in e-learning and as a parent, I can summarize the advantages and disadvantages of e-learning as follows:

The advantages included:

1- The students stayed connected to learning and books and it is better for them not to sit and do nothing because of the epidemic.

2- The students' skills in computer and IT became stronger.

3- Self- motivated students can dig for more information on subjects from the internet.

4- Compensate the missing materials and revise it.

5- Students acquire skills to use e-learning applications.

6- Students become more disciplined and respect time.

The disadvantages included:

1- The student may get distracted easily by the different social media outlets on his/her smart phones.

2- The internet connection in Palestine is not active all times.

3- The teacher becomes closer to the center of the learning process.

4- There are no facial expressions, gestures, feelings and other emotional interactions between the teacher and students.

5- In many cases, students don't attend classes and very few students attend. The teacher loses his or her motivation to teach and that was the case with my kids.

6- Some students and teachers aren't trained well to use technology.

7- Many students don't deal seriously with e-learning.

Chapter Five

Discussion

This chapter presents a discussion of the results from the empirical study that was conducted as shown below.

5.1 Discussion of Study Questions

5.1.1 Discussion of the Main Question

The main question of the study stated that: What is the reality of e-learning in the basic schools in Palestine from students', teachers' and school principals' point of view? To answer this question, the researcher divided the main question to several sub-questions as follows:

Q1: What are the Respondents' (Students, Teachers and School Principals) Degree of Readiness to Implement E-learning at the Palestinian Basic Schools

The findings showed that there was a medium degree of students' readiness to implement e-learning at the basic schools in Palestine with 66.0% of acceptance, where students ensured that they can handle the devices flexibly. They also agreed that they can attend all classes at home during lockdowns because the pandemic came with high degree of acceptance. They agreed that they can answer all homeworks while they are at home. On the other hand, students face problems with audio recording when attending online lessons.

On the other hand, the study showed that teachers' readiness for implementing e-learning at basic schools came with high degree of acceptance with74.5%. Teachers believed that they can present lessons at school and from home, easily receive students' answers through internet, and deal with online applications related to e-learning very well.

Accordingly, teachers believed that they can deal easily with laptops, iPads, iPhones to present online classes, which proved their satisfaction of their performance in providing online lessons. On the other hand, teachers had medium degree of satisfaction towards forcing them to present online classes without any training. Moreover, teachers also faced some problems related to the lack of equipment and tools that should be used for e-learning classes.

In that regard, school administration had medium degree of readiness towards implementing e-learning at basic schools, where they had a high degree of acceptance towards the availability of the required technology for e-learning at school, and they had the proper knowledge of the suitable devices (laptops, phones..) that are needed to apply online classes. On the other hand, school administration had medium degree of acceptance towards training teachers to master online classes, and they believed that good internet connection is suitable for el-learning programs and applications.

Q2: What are the Respondents' (Students, Teachers and School Principals) Point of View Towards the Governmental Legislations and School Role to Implement E-learning at the Palestinian Basic Schools?

The study showed that there was medium degree of agreement from students' point of view towards the governmental legislations and school role due to the spread of Covid-19 pandemic in Palestine reaching 53.5% of acceptance. Whereas students believed that teachers used to explain how to deal with devices to attend e-learning classes in advance came with a high degree of agreement. They also believed that imposing e-learning by the Palestinian Ministry of Education is inappropriate for students in the primary schools. On the other hand, students had medium degree of agreement that teachers used to explain how to store online lessons on their devices, and they also

explained how to submit homeworks electronically, while students had low degree of agreement regarding the use of several applications during online lessons.

While teachers who have a high degree of agreement towards school role and the governmental legislations and decisions taken during the spread of Covid-19, believed that the enforcement of e-learning by the Palestinian Ministry of Education caused weak and redundant learning outcomes. Teachers preferred that the school administration pays for internet fees for both teachers and students. On the other hand, teachers believed that policies, procedures and instructions of the Palestinian Ministry of Education were not suitable for all teachers came with a high degree of acceptance.

School principals had medium degree of agreement towards school role and the governmental legislations and decisions taken due to the spread of Covid-19, when the school administration allows teachers to present online classes at school and home.

In addition, teachers believed that school administration obliged all teachers to introduce their online classes through common internet application. On the other hand, school principals had medium degree of agreement towards the delay of practical teaching that will be presented during face-to-face classes, and they prepared extracurricular activities with teachers to be achieved when returning to face-to-face teaching. They also believed that school administration used to follow-up and supervise teachers and students while attending online classes. School principals moderately agreed that the Palestinian Ministry of Education is responsible for weak learning outcomes of students because of the sudden enforcement of e-learning without any previous preparations, and the legislations were not suitable for the basic schools.

Q3: What are the Main Effects of Covid-19 on E-learning Process at the Palestinian Basic Schools from the Respondents' (Students, Teachers and School Principals) Point of View?

The findings showed that students had high degree of acceptance that Covid-19 had an effect on the learning process, as they were forced to attend classes from home. They also thought that e-learning is an indirect educational approach, and it caused to isolate and separate them from their classmates. Students expressed their happiness to attend classes at home because the subjects were not covered by teachers and they relied on their parents to help them with their studies. On the other hand, the effect of Covid-19 from students' point of view showed that the discussion during e-learning classes is weak, and it makes them feel stressed. While students at basic schools had medium degree of agreement towards losing their motivation to learn. In addition, e-learning can develop self-learning skills, even though, students had low degree of agreement towards the effect of Covid-19 on changing the way that they used to interact with their teachers.

Accordingly, teachers showed a high degree of agreement towards the effects of Covid-19 on the learning process at basic schools in Palestine. They highly believed that online classes were the main cause behind delaying many extracurricular activities, thus creating a gap in the educational process. They also believed that it is difficult to continue e-learning for a long period. These reasons made them agree that it is better to stop e-learning. On the other hand, teachers who have a medium degree of acceptance towards the importance of web-based teaching, believed it caused lack of effective communication among teachers as well as students. Teachers who had a low degree of agreement concluded that e-learning broaden knowledge.

Consequently, school principals who had a high degree of acceptance towards the effect of Covid-19 on the learning process, agreed that Covid-19 caused troubles in the teaching process, as they received many complaints from parents, and teachers reached a blurred vision regarding learning expectations and outcomes. Add to this, the lack of effective communication between students and teachers which made them call for stopping online learning.

5.2 Discussion of Tested Hypotheses

H1: There is No Statistical Relationship at $\alpha \leq 0.05$ Significant Level Among the Respondents' Views Towards their Readiness to Implement E-learning and the Effects of Covid-19 Pandemic at the Palestinian Basic Schools.

The study showed that there was a strong relationship between students' readiness for implementing e-learning and the effect of Covid-19 pandemic on the learning process at basic schools in Palestine. This indicates that the more impacts and spread of Covid-19 pandemic, the more readiness to implement e-learning among students. The findings also showed that there was no statistical relationship between teachers and school principals' views regarding their readiness for the implementation of e-learning and the effect of Covid-19 pandemic.

H2: There is No Statistical Relationship at $\alpha \leq 0.05$ Significant Level Among the Respondents' Views Towards their Readiness to Implement E-learning and the Governmental Legislations / School Role Due to Covid-19 at the Palestinian Basic Schools.

The findings showed that there was a statistical relationship between the respondents' readiness for implementing e-learning and the governmental legislations

and school role at basic schools in Palestine. The study also showed that there was no statistical relationship among teachers, which means that students and school principals were the most affected and influenced by these legislations and role, while teachers were less affected.

H3-1: There are No Statistical Differences at α≤0.05 Significant Level Among the Respondent's Views Towards the Reality of E-learning at the Palestinian Basic Schools Due to their Gender.

The study showed that there were statistical differences between students' answers towards their readiness for the implementation of e-learning among basic schools related to their gender, in favor of male students. This means that male students were more ready than females for this implementation due to the spread of Covid-19 pandemic. On the other hand, there were no statistical differences among teachers and school principals due to their gender, which means that both of them had similar readiness for this implementation.

The study found that there were statistical differences between students' answers towards the governmental legislations and school role due to enforcing e-learning process, and these differences were in favor of male students. This denotes that male students were more affected than female students of these legislations and roles. On the other hand, the findings showed that there were no statistical differences among teachers and school principals due to their gender.

There were statistical differences between students' answers towards the effects of Covid-19 pandemic on the learning process, in favor of the male students, indicating that male students were more affected than females of Covid-19 pandemic. On the other hand, the findings showed that there were no statistical differences between teachers and

school principals, which means that both of them had shared similar effects due to their gender.

H3-2: There are No Statistical Differences at α≤0.05 Significant Level between the Respondent's Views Towards the Reality of E-learning at The Palestinian Basic Schools Due to their School Type.

The results showed that there were statistical differences between the students' answers towards their readiness for the implementation of e-learning due to school type, in favor of public schools, meaning that public schools in Palestine were more ready than private ones. On the other hand, the findings showed that there were no statistical differences between teachers and school principals' answers related to school type, which means that both of them had the same readiness regarding the implementation of e-learning at the basic schools in Palestine.

The findings also showed that there were statistical differences between students' answers towards the governmental legislations and school role with respect to school type, in favor of male students. This indicates that male students were more affected of these legislations and school role than females. On the other hand, the findings showed that there were no statistical differences between teachers and school principals' answers with respect to school type, which means that both of them suffered from the governmental legislations and school role.

The study found that there were statistical differences between students' answers towards the effects of Covid-19 on the learning process with respect to school type, and these differences were in favor of public schools. This shows that students at basic schools who were studying in public school were more affected of the spread of Covid-19 than those who study in the private schools. On the other hand, the findings showed that there

were no statistical differences between teachers and school principals towards the effect of COVID-19 on the learning process, which means that both of them share similar effects whether they are working in public or private schools.

H3-3: There are No Statistical Differences at α≤0.05 Significant Level between the Respondent's Views Towards the Reality of E-learning at the Palestinian Basic Schools Due to their Attendance

The results revealed that there were statistical differences between students' answers towards their readiness for the implementation of e-learning process at the basic schools due to the spread of Covid-19 pandemic related to attendance at school, home or both. These differences were in favor of 'at school', which means that students preferred to attend classes at school more than at home even with the spread of Covid-19 pandemic. On the other hand, the findings showed that there were no statistical differences between teachers' and school principals' answers towards their readiness of implementing e-learning with respect to attendance of classes, which means that both of them had similar answers towards attending the classes whether at school or at home.

The findings also showed that there were no statistical differences between all respondents (students, teachers and school principals) towards the governmental legislations and school role of implementing e-learning due to the attendance of classes, which means that these legislations and role were accepted at a similar level among students, teachers and school principals.

The findings showed that there were statistical differences between students' answers towards the effect of Covid-19 on the learning process due to attending classes, in favor of 'at school', and it also showed that there were statistical differences between teachers' answers towards the effect of Covid-19 on the learning process due to attending

classes. These differences were in favor of attending classes at school. While there were no statistical differences among school principals' answers towards the effect of Covid-19 on the learning process, which means that both of them shared dire impacts of COVID-19.

H3-4: There are No Statistical Differences at α≤0.05 Significant Level Among the Respondent's Views Towards the Reality of E-learning at The Palestinian Basic Schools Due to their Ability of Using Technological Devices.

The study revealed that there were no statistical differences among students', teachers' and school principals' answers towards the reality of e-learning concerning readiness, governmental legislations, school role, and the effects of COVID-19 on learning process at the basic schools in Palestine due to their ability of using technological devices except for teachers' readiness. This means that the majority had similar ability of using these technological devices (laptops, mobile, iPads, iPhones) since they are available in Palestine and people are familiar to using them. According to the teachers' readiness, it has been found that there were statistical differences between teachers in favor of 'excellent and very good', where the researcher believed that there were some teachers, especially the elder ones, had less ability and skills of using these devices.

H3-5: There are No Statistical Differences at α≤0.05significant Level Among the Respondent's Views Towards the Reality of E-Learning at The Palestinian Basic Schools Due to their Preferred Applications.

The findings showed that there were no statistical differences between students', teachers' and school principals' answers towards the reality of e-learning (readiness, governmental legislations / school role, the effects of COVID-19 on the learning process) due to the preferred application. This means that using any of these applications (such as

Zoom, WhatsApp, e-mail, Google classroom…) will not change the readiness of respondents for the implementation of e-learning, since they were skilful of using technological devices, which help them to use proper applications in e-learning process.

5. 3 Discussion of Interviews Results

Regarding teachers and parents' answers towards the interviews, the study revealed the following results:

Question Number One: Is the E-Learning Experience Suitable for All Students?

The answers of both teachers and parents varied between supporters and opponents; the first group that supported e-learning argued that it could be more beneficial if it is not restricted with time or place. At the same time, parents believed that younger students can interact with distance learning more than older ones, where many of them may help their parents upon the hard economic situation their families are living. On the other hand, the opponent group believed that many students do not have the ability to have computer device, or internet access all the time.

In conclusion, to succeed e-learning process, MoE, school administrations, teachers, parents and students need to be more qualified and prepared before implementing e-learning which is considered as an alternative method to teach students. However, we can't control the emergency circumstances and the door must be open to new alternatives to keep life going. Covid-19 pandemic forced us to look for other options to continue the educational process with minimal damage.

Question Number Two: Is E-learning Enjoys the Same Efficiency and Effectiveness as School Learning? and Do the Students Get the Same Help During E-Learning as They Get It in the Classrooms?

Answers of parents and teachers were similar, where they believed that the traditional way of teaching, face-to-face learning, is more efficient and effective to achieve learning process, since the student is the core of education in the classroom. In addition, teachers can easily negotiate and discuss ideas with students, which means that they can evaluate their students more effectively. On the other hand, teachers tried to finish the curricula during online classes, regardless of teaching and discussing ideas with students. Another obstacle faced teachers came from parents, where many of them helped their children to do their homeworks, which caused unfair evaluation for students' academic achievements.

Question Number Three: Did Your Son/Daughter Face any Problems in Dealing With E-Learning Tools? if the Answer is Yes, Please Explain Why?

Most of the answers stated that students faced many obstacles and problems while dealing with on-line courses. Disconnection of the internet prevented access during the online classes. Adding to that, internet applications and groups on Facebook distracted the student's attention. Many students, especially the youngest ones, could not distinguish between social media and learning time, since most of their friends are connected online during the lessons, which caused a lot of troubles, and led to lack of focus.

Question Number Four: Do You Think that E-Learning Develops Students' Skills as Learning Does in School? and What are the Advantages and Disadvantages of Online Learning?

The majority of teachers and parents believed that e-learning might be a good method to develop the students' skills, either by assessing self-learning, or by respecting time of online class. If e-learning is implemented correctly, it will lead to independent students. Online learning helped the education process to continue in light of the lockdowns and closures of schools.

On the other hand, e-learning had many disadvantages such as the differences between students in dealing with e-learning applications, focusing on what their teachers introduce to them, less discussions, less facial expressions, gestures, feelings and other emotional interactions between teachers and students. This led teachers to become the center of the learning process, and reduced the students' ability to be the core of educational process.

In conclusion, I believe, from my experience in teaching, that in Palestinian schools, students and teachers at basic stages need to train themselves to develop their skills on digital applications, regardless of the circumstances, where distance learning became one of the leading methods of teaching worldwide. For this purpose, we need to pay more attention, harnessing all available efforts and resources to develop our students' ability on dealing with distance learning methods, in general, and e-learning process in particular.

Chapter Six

Conclusions & Recommendations

6.1 Conclusions

The findings of the practical part showed the following results:

- Teachers were more ready than students and school principals for implementing e-learning on basic schools in Palestine.

- Teachers had higher degree than students and school principals' towards the governmental legislations and school role.

- The effects of COVID-19 on the learning process among basic schools in Palestine were very close, all of them had a high degree of acceptance, and the answers came in the following order (school principals, teachers, and students).

- Students believed that there was a significant relationship between their readiness and the effects of COVID-19 more than teachers and school principals.

- Both students and school principals believed that there was a significant relationship between their readiness and the governmental legislations and school role more than teachers at basic schools in Palestine.

- Male students had higher degree than females towards the reality of e-learning (readiness, governmental legislations and school roles, the effect of COVID-19 on learning process) due to the spread of Covid-19 pandemic at basic schools in Palestine.

- Students who study at public schools in Palestine had higher degree of the reality of e-learning than those who study at private ones.

- Students preferred to attend classes at home due to their readiness of the implementation of e-learning at basic schools in Palestine.

- Students who preferred attending classes at schools or at home were more affected of Covid-9 than those who preferred to attend classes at both of school and home, while teachers who preferred attending classes at school were more affected than those who preferred attending classes at home.

- Most of the students had 'very good' ability in using technological devices, while most of the teachers had 'excellent' ability, and school principals had 'very good' ability.

- Most of students, teachers and school principals preferred to use Zoom application for e-learning process.

6.2 Recommendations

The researcher recommends school principals to develop school infrastructure and resources to implement e-learning in the best manner since the results showed that this process is going to be the future methodology of teaching worldwide due to the continuity of spreading Covid-19 pandemic. In addition to conducting   training to teachers and administrative staff, and providing the proper tools, instruments and applications at their schools.

The study also recommends teachers to train themselves very well on dealing with various applications since each of them have different beneficial features to the learning process.

The study recommends students at basic schools develop their attitudes towards self-learning since online learning became a need for them, where they can find all of sciences and knowledge on the web from various resources.

On the other hand, the study recommends the Palestinian Ministry of Education to evaluate its experience in e-learning, to find out the weaknesses to avoid them, and to

assess the strengths to implement the best model of e-learning. . They also should develop online learning tools and instruments by presenting some roles and legislations related to developing the learning process in general, and e-learning in particular.

6.3 Contributions & Implications

According to the aim of the study, the findings proved the importance of e-learning due to the spread of COVID-19 as the proper solution to continue the learning process at the basic schools in Palestine, which in return need to pay more attention for all factors that have vital effects on the learning process.

6.4 Limitations of the Study

The study was limited by the time, and location, where the researcher finished preparing the research during the second academic semester 2021-2022, and the study was limited to 6 public and private primary schools in Palestine.

It was also limited to investigate the reality of e-learning (respondent' readiness, governmental legislations and school roles, the effect of COVID-19 on learning process) at the basic schools. The researcher had designed three questionnaires as the study tools, and distributed them among students, teachers and school principals at the basic schools in Palestine.

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Appendices

Appendix –A-

Arab American University

Ramallah Site

الجامعــــة العربيــــة الأمريكيــــة

موقع رام الله

Student's Questionnaire

Dear Student,

The researcher prepared a questionnaire with the aim of revealing the reality of e-learning in the primary schools in Palestine from teachers', student' and decision makers' point of views, as a requirement to complete her graduation project. Your answers will be used for scientific research only, so please do not hesitate to answer all the paragraphs, and she promises to treat your answers confidentially, knowing that you might need about 15 minutes to fill out all questions. By completing this questionnaire, it is an implicit consent from you to participate in the research. Note: Children are addressed orally in their own language.

Researcher Name: Wafa Absy

Arab American University

First Part: Demographic Data

1.   **Gender:** ☐ Male   ☐ Female

2.   **Class:** ☐ seventh   ☐ eighth   ☐ ninth

3.   **Type of your School:** ☐ Public   ☐ Private

4.   **How is your ability in using technological devices (Computer, Laptop,**

Mobile, iPads, iPhones):   ☐ Excellent ☐ Very Good   ☐ Good

☐ Moderate ☐ Weak

5.   **Do you prefer attending classes at school or at home**

☐ School   ☐ Home   ☐ Both

6.   **Which application do you prefer in e-learning?**

☐ Zoom ☐ Google classroom ☐ WhatsApp ☐ Mail   ☐ Others

Second Part: Student's Questionnaire

Please check (X) in front of the most suitable answer from your point of view

No.	Statement	Yes	I Don't Know	No
1.	I can attend all classes at home during lockdown because of pandemic			
2.	I can answer all homeworks while I am at home			
3.	My family helps me to operate the electronic device to attend online classes			
4.	I can store all lessons on the device			
5.	I can retrieve all lessons saved on the device whenever I need			
6.	I can handle the device flexibly			
7.	I am happy to attend lessons at home			

No.	Statement	Yes	I Don't Know	No
8.	E-learning kept me away from my classmates			
9.	I feel that the discussion is weak during e-learning classes			
10.	I think that e-learning is an indirect educational approach			
11.	E-learning isolates learners from each other			
12.	E-learning develops self-learning skills			
13.	I think that imposing e-learning by the Palestinian MoE is inappropriate for primary school students.			
14.	Teachers used to explain how to deal with devices to attend e-learning classes in advance			
15.	Teachers explain to students how to store online lessons on their devices			
16.	Teachers explain how to submit homeworks electronically			
17.	I face some problems while attending e-classes, especially when the Internet system breaks down, which make me late for online lessons			
18.	Teachers use several applications during online lessons			
19.	I have problems with audio recording when attending online lessons			
20.	COVID-19 pandemic has forced us to attend lessons from home.			
21.	I wasn't well prepared to attend online lessons before the spread of COVID-19			

No.	Statement	Yes	I Don't Know	No
22.	It's hard to attend online lessons at home when my parents are busy			
23.	I lost motivation to learn because of the problems caused by COVID-19			
24.	I feel stressed because of COVID-19			
25.	COVID-19 has changed the way I interact with teachers			

Third Part: Teachers' Questionnaire

Please check (X) in front of the most suitable answer from your point of view

No.	Statement	Yes	I Don't Know	No
1.	I can present lessons at school and from home			
2.	I can easily receive students' answers through the internet			
3.	School administrations forced teachers to present their online classes without any training			
4.	I can deal with online applications related to e-learning very well			
5.	I record the lesson before uploading it online			
6.	I can deal easily with my device (laptops, iPads, iPhones..) to present online classes			
7.	I am satisfied with my performance in providing online lessons			
8.	e-learning makes knowledge wider			
9.	e-learning is not suitable for practical classes			

No.	Statement	Yes	I Don't Know	No
10.	Some students cannot attend online classes			
11.	Online classes delayed many extracurricular activities			
12.	I think that web-based teaching is important for students			
13.	I feel lack of discussions while presenting online lessons			
14.	Teachers have low degree of expectations for e-learning outcomes			
15.	I have problems with the lack of equipment and tools that should be used for e-learning classes			
16.	Some devices (laptops, phones..) are not compatible for e-classes which cause some troubles in presenting e-learning classes			
17.	I face some troubles of internet access			
18.	I prefer to use voice notes while presenting online classes			
19.	I think the cost of internet package is too high			
20.	I prefer that the school administration pays for internet fees for both teachers and students			
21.	I face lack of effective communication skills between teachers and students			
22.	It's better to stop e-learning			
23.	I think that online learning environment is not motivating			
24.	It is difficult to continue e-learning process for long term			
25.	Policies, procedures and instructions of MoE are not suitable for all teachers			

No.	Statement	Yes	I Don't Know	No
26.	The enforcement of e-learning by MoE caused weak learning outcomes of students			
27.	COVID-19 caused troubles for the educational process			
28.	E-learning is very helpful during COVID-19 pandemic			
29.	COVID-19 caused stress and anxiety among teachers			
30.	COVID-19 caused an inequality between students because some of them do not have online skills			

Fourth Part: School Administration's Questionnaire

Please check (X) in front of the most suitable answer from your point of view

No.	Statement	Yes	I Don't Know	No
1.	The school administration allows teachers to present online classes at school and home			
2.	Your administration trained your teachers to use online classes skills			
3.	Your school is fully prepared to introduce online classes			
4.	The administration obliged all teachers to introduce their online classes through one common application			
5.	The school has a good internet connection despite other downloads, and suitable for e-learning classes			
6.	School administration shares internet fees with teachers			
7.	Practical teaching has been delayed to be presented during face-to-face classes			

No.	Statement	Yes	I Don't Know	No
8.	School administration follow-up teachers and students attendance of online classes			
9.	The administration prepared extracurricular activities with teachers to be achieved while turning back to face-to-face teaching process			
10.	You found that web-based teaching is important for students			
11.	You received many complaints from parents because e-learning process is difficult for their children			
12.	You found lack of clear learning expectations from teachers			
13.	Required technology is available at school for e-learning classes			
14.	School administration has the proper knowledge of the suitable devices (laptops, phones..) that are compatible with online classes			
16.	School administration used to record all online classes and revise them to make sure that the teaching process is working effectively			
17.	The cost of internet fees, that the school pays, is too high			
18.	You found lack of effective communication skills among teachers and students			
19.	You prefer online learning should stop			
20.	You think that online learning environment is not motivating			

No.	Statement	Yes	I Don't Know	No
21.	You found weakness of teachers' personal motivation at online learning			
22.	It is difficult to continue e-learning process for long term			
23.	The legislations of MoE are not suitable for your school			
24.	You think that MoE is responsible for weak learning outcomes of students because of the sudden enforcement of e-learning without any previous preparations			
25.	COVID-19 caused troubles in teaching process			
26.	E-learning is very helpful through COVID-19 pandemic days			
27.	COVID-19 caused stress and anxiety among teachers and students			
28.	COVID-19 weakened interactions between teachers and students			
29.	COVID-19 caused an inequality between students because some of them do not have online skills			

Thank you very much

-Question One: Is the E-Learning Experience Suitable for All Students'?

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-Question Two: Does The Student Get The Same Help During E-Learning as he Gets in the Classroom?

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-Question Three: Is E- Learning Considered the Same Efficiency and Effectiveness as School Learning?

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-Question Four:--Did Your Son / Daughter Face any Problems in Dealing With E-Learning Tools? If the Answer is Yes, Please Explain Why?

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-Question Five: Do You Think That E- Learning Develop Students' Skills Just as Learning Does in School?

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-Question Six: Through Your Experience In E-Learning, What are the Advantages and

Disadvantages of Online Learning?

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Appendix - B

Arab American University

Ramallah Site

الجامعـــة العربيـــة الأمريكيـــة

موقع رام الله

استبانة الطلبة

عزيزي الطالب/ة،

أعدّت الباحثة استبانة بهدف الكشف عن "واقع التعليم الإلكتروني لدى طلبة المرحلة الأساسية في مدينتي رام الله والبيرة من وجهة نظر المعلمين والطلبة وصناع القرار"، كمتطلب لإنجاز مشروع التخرج، وسوف يتم التعامل مع إجاباتكم لغاية البحث العلمي فقط، لذا يُرجى عدم التردد في الإجابة على جميع الفقرات، وأعدك بالتعامل مع إجاباتكم بسرية، علماً بأنك ستحتاج نحو (15) دقيقة لتعبئة الاستبانة، ويُعد إكمال الاستبانة موافقة ضمنية منك على المشاركة في البحث.

ملحوظة : يتم مخاطبة الأطفال شفويا بلغتهم

اسم الباحثة: وفاء العبسي

<u>أولاً: البيانات الديموغرافية</u>

1. الجنس: ☐ ذكر   ☐ أنثى
2. الصف: ☐ سابع   ☐ ثامن   ☐ تاسع
3. نوع المدرسة: ☐ حكومية   ☐ خاصة
4. ما قدرتك على استخدام الأجهزة الإلكترونية (حاسب آلي، جهاز محمول، موبايل، آي باد، آي فون): ☐ ممتاز   ☐ جيد جداً   ☐ جيد   ☐متوسط   ☐ ضعيف
5. هل تفضل حضور الحصص الصفية في المدرسة أم المنزل؟
   ☐ المدرسة   ☐ المنزل   ☐ كلاهما
6. ما أكثر التطبيقات التي تفضل استخدامها في التعليم الإلكتروني؟
   ☐ زووم   ☐ الغرف الصفية لدى غوغل   ☐ واتس آب   ☐ البريد الإلكتروني ☐ أخرى

ثانياً: فقرات الاستبانة

الرجاء وضع إشارة (×) مقابل الإجابة الأكثر ملاءمة من وجهة نظرك

لا	لا أعرف	نعم	الفقرة	الرقم
			أستطيع حضور جميع الحصص في المنزل أثناء إغلاق المدرسة بسبب كورونا	1.
			أستطيع الإجابة عن جميع الوظائف المنزلية وأنا في المنزل	2.
			تساعدني أسرتي في تشغيل الجهاز الإلكتروني لحضور الحصة الصفية	3.
			أستطيع تخزين جميع الدروس على الجهاز	4.
			يمكنني استرجاع جميع الدروس المحفوظة على الجهاز متى أريد	5.
			يمكنني التعامل مع الجهاز بمرونة	6.
			أنا سعيد لحضور الدروس في المنزل	7.
			أدى التعليم الإلكتروني لإبعادي عن زملائي	8.
			أشعر بضعف المناقشة أثناء الدرس الإلكتروني	9.
			أعتقد أن التعليم الإلكتروني هو تعليم غير مباشر بدرجة كبيرة	10.
			يؤدي التعليم الإلكتروني إلى عزل المتعلمين عن بعضهم البعض	11.
			يطور التعليم الإلكتروني مهارات التعلم الذاتي	12.
			أعتقد أن فرض التعليم الإلكتروني من قبل وزارة التربية والتعليم الفلسطينية غير مناسب لطلبة المرحلة الأساسية.	13.
			يقوم المعلمون بشرح كيفية التعامل مع الأجهزة لحضور الطلبة الحصص الصفية عن بُعد	14.
			يقوم المعلمون بشرح كيفية تخزين الدروس الإلكترونية للطلبة على الجهاز	15.
			يشرح المعلمون للطلبة كيف يمكن إرسال إجابات الوظائف المنزلية عن بُعد.	16.

لا	لا أعرف	نعم	الفقرة	الرقم
			أعاني من مشكلات حضور الدروس عن بُعد وخصوصاً انقطاع شبكة الإنترنت والذي يتسبب في تأخري عن حضور الدروس الإلكترونية	17.
			يستخدم المعلمون عدة تطبيقات عند تقديم الدروس عند بُعد	18.
			أعاني من مشاكل التسجيل الصوتي عند حضور الدروس عن بُعد	19.
			أجبرتنا جائحة كورونا على حضور الدروس من المنزل.	20.
			لم أكن مستعداً بشكل جيد لحضور الدروس عن بُعد قبل انتشار فيروس كورونا	21.
			من الصعب علي حضور الدروس عن بُعد من المنزل حينما يكون والداي مشغولين	22.
			فقدت حافزية التعلم بسبب المشاكل التي تسبب فيها فيروس كورونا	23
			أشعر بالتوتر والضغط بسبب فيروس كورونا	24.
			أدى فيروس كورونا لتغيير طريقة تعاملي مع المعلمين	25.

Arab American University الجامعة العربيــة الأمريكيــة

Ramallah Site موقع رام الله

استبانة المعلمين

عزيزي المعلم/ة،

أعدّت الباحثة استبانة بهدف الكشف عن "واقع التعليم الإلكتروني لدى طلبة المرحلة الأساسية في مدينتي رام الله والبيرة من وجهة نظر المعلمين والطلبة وصناع القرار"، كمتطلب لإنجاز مشروع التخرج، وسوف يتم التعامل مع إجاباتكم لغاية البحث العلمي فقط، لذا يُرجى عدم التردد في الإجابة على جميع الفقرات، وأعدك بالتعامل مع إجاباتكم بسرية، علماً بأنك ستحتاج نحو (15) دقيقة لتعبئة الاستبانة، ويُعد إكمال الاستبانة موافقة ضمنية منك على المشاركة في البحث.

اسم الباحثة: وفاء العبسي

<u>أولاً: البيانات الديموغرافية</u>

7. الجنس: ☐ ذكر   ☐ أنثى

8. الصف: ☐ سابع   ☐ ثامن   ☐ تاسع

9. نوع المدرسة: ☐ حكومية   ☐ خاصة

10.   ما قدرتك على استخدام الأجهزة الإلكترونية (حاسب آلي، جهاز محمول، موبايل، آي باد، آي فون): ☐ ممتاز   ☐ جيد جداً   ☐ جيد   ☐متوسط   ☐ ضعيف

11.   هل تفضل حضور الحصص الصفية في المدرسة أم المنزل؟

☐ المدرسة   ☐ المنزل   ☐ كلاهما

12.   ما أكثر التطبيقات التي تفضل استخدامها في التعليم الإلكتروني؟

☐ زووم   ☐ الغرف الصفية لدى غوغل   ☐ واتس آب   ☐ البريد الإلكتروني ☐ أخرى

ثانياً: فقرات الاستبانة

الرجاء وضع إشارة (×) مقابل الإجابة الأكثر ملاءمة من وجهة نظرك

الرقم	الفقرة	نعم	لا أعرف	لا
1.	يمكنني تقديم الدروس في الصف أو المنزل			
2.	يمكنني استلام الوظائف المنزلية من الطلبة عبر الإنترنت بسهولة			
3.	أجبرت الإدارة المدرسية المعلين لتقديم دروسهم عبر الإنترنت بعد تدريب مُسبق			
4.	أستطيع استخدام تطبيقات الإنترنت المرتبطة بالتعليم الإلكتروني بشكل جيد			
5.	أقوم بتسجيل الدرس قبل تحميله عبر الإنترنت			
6.	أستطيع التعامل مع جهاز (اللابتوب، آي باد، آي فون..) بسهولة لتقديم الدروس عبر الإنترنت			
7.	أنا راضٍ عن أدائي في تقديم الدروس عبر الإنترنت			
8.	التعليم الإلكتروني يجعل الحصول على المعرفة متاحاً بشكل أوسع			
9.	لا يتناسب التعليم الإلكتروني مع الدروس التطبيقية (المواد العلمية)			
10.	هناك بعض من الطلبة لا يستطيعون حضور الدروس عبر الإنترنت			
11.	أدى التعليم عبر الإنترنت إلى تأجيل النشاطات اللامنهجية			
12.	أعتقد بأهمية التعليم المعتمد على شبكة الويب للطلبة			
13.	أشعر بضعف النقاش أثناء تقديم الدروس عبر الإنترنت			
14.	يوجد ضعف في توقعات المعلمين لمخرجات التعليم الإلكتروني لدى الطلبة			
15.	أعاني من مشاكل عدم توفر التجهيزات والأدوات المستخدمة عبر الإنترنت في المدرسة			
16.	هناك بعض من الأجهزة (لابتوب، هاتف محمول..) لا تتوافق مع متطلبات التعليم الإلكتروني والذي يتسبب في مشاكل عند تقديم الدروس عبر الإنترنت			

لا	لا أعرف	نعم	الفقرة	الرقم
			أعاني من ضعف الوصول السريع بشبكة الإنترنت	17.
			أفضل استخدام الملاحظات الصوتية باعتبارها وسيلة فاعلة في تقديم الدروس عبر الإنترنت	18.
			أعتقد بأن تكلفة حزمة الإنترنت الشخصية مرتفعة جداً	19.
			أفضل أن تقوم المدرسة بدفع رسوم الاشتراك عبر الإنترنت للمعلمين وللطلبة على السواء	20.
			أعاني من ضعف التفاعل في مهارات الاتصال والتواصل بين المعلمين والطلبة	21.
			أفضل أن يتوقف أسلوب التعليم عبر الإنترنت	22.
			أعتقد أن بيئة التعليم عبر الإنترنت غير محفزة	23.
			من الصعب الاستمرار في عملية التعليم الإلكتروني لمدة طويلة	24.
			أعتقد بان السياسات والإجراءات والتعليمات الصادرة من وزارة التربية والتعليم الفلسطينية غير ملائمة لجميع المعلمين	25.
			أرى بأن فرض وزارة التربية والتعليم الفلسطينية للتعليم الإلكتروني قد تسبب في ضعف مخرجات التعليم للطلبة	26.
			أدت جائحة كورونا إلى التسبب في مشاكل لمسار العملية التعليمية	27.
			أعتقد بأن التعليم الإلكتروني مفيد جداً في ظل تفشي جائحة كورونا	28.
			تسببت جائحة كورونا بالتوتر والقلق لدى المعلمين	29.
			تسببت جائحة كورونا في عدم تحقيق المساواة بين الطلبة نظراً لعدم امتلاك البعض منهم مهارة العمل عن بُعد عبر الإنترنت	30.

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Ramallah Site		موقع رام الله

استبانة الإدارة المدرسية

عزيزي المدير/ة،

أعدّت الباحثة استبانة بهدف الكشف عن "واقع التعليم الإلكتروني لدى طلبة المرحلة الأساسية في مدينتي رام الله والبيرة من وجهة نظر المعلمين والطلبة وصناع القرار"، كمتطلب لإنجاز مشروع التخرج، وسوف يتم التعامل مع إجاباتكم لغاية البحث العلمي فقط، لذا يُرجى عدم التردد في الإجابة على جميع الفقرات، وأعدك بالتعامل مع إجاباتكم بسرية، علماً بأنك ستحتاج نحو (15) دقيقة لتعبئة الاستبانة، ويُعد إكمال الاستبانة موافقة ضمنية منك على المشاركة في البحث.

اسم الباحثة: وفاء العبسي

<u>أولاً: البيانات الديموغرافية</u>

13. الجنس: ☐ ذكر ☐ أنثى

14. الصف: ☐ سابع ☐ ثامن ☐ تاسع

15. نوع المدرسة: ☐ حكومية ☐ خاصة

16. ما قدرتك على استخدام الأجهزة الإلكترونية (حاسب آلي، جهاز محمول، موبايل، آي باد، آي فون): ☐ ممتاز ☐ جيد جداً ☐ جيد ☐ متوسط ☐ ضعيف

17. هل تفضل حضور الحصص الصفية في المدرسة أم المنزل؟

☐ المدرسة ☐ المنزل ☐ كلاهما

18. ما أكثر التطبيقات التي تفضل استخدامها في التعليم الإلكتروني؟

☐ زووم ☐ الغرف الصفية لدى غوغل ☐ واتس آب ☐ البريد الإلكتروني ☐ أخرى

ثانياً: فقرات الاستبانة

الرجاء وضع إشارة (×) مقابل الإجابة الأكثر ملاءمة من وجهة نظرك

الرقم	الفقرة	نعم	لا أعرف	لا
1.	تسمح الإدارة المدرسية للمعلمين بتقديم الدروس عبر الإنترنت في المدرسة أو المنزل			
2.	قامت الإدارة المدرسية بتدريب المعلمين على استخدام مهارات تقديم الدروس عبر الإنترنت			
3.	تم تجهيز المدرسة بالكامل لتقديم الدروس عبر الإنترنت			
4.	تُجبر المدرسة المعلمين على تقديم الدروس من خلال استخدام تطبيق موحد للجميع			
5.	لدى المدرسة خط نفاذ جيد وسريع على الرغم من الأحمال الزائدة وملائم للتعليم عن بُعد			
6.	تتشارك المدرسة مع المعلمين في دفع رسوم الاشتراك عبر الإنترنت			
7.	تم تأجيل الدروس العملية (التطبيقية) لتقديمها بالطريقة الوجاهية			
8.	تتابع الإدارة المدرسية حضور المعلمين والطلبة للدروس المقدمة عبر الإنترنت			
9.	أعدت المدرسة وبالتعاون مع المعلمين الأنشطة اللامنهجية لتقديمها بالطريقة الوجاهية بعد العودة إلى المدارس			
10.	تعتقد بأهمية التعليم المستند إلى شبكة الويب للطلبة			
11.	استلمت إدارة المدرسة العديد من الشكاوى من قبل أولياء أمور الطلبة والمتعلقة بصعوبة التعليم الإلكتروني على أبنائهم			
12.	تعتقد بوجود نقص في التوقعات التعليمة لدى المعلمين أثناء التعليم عن بُعد			
13.	تتوفر التكنولوجيا الملائمة للتعليم الإلكتروني لدى المدرسة			
14.	لدى الإدارة المدرسية المعرفة بأجهزة (لابتوب، الهاتف المحمول..) التي تتناسب وتتوافق مع التعليم عبر الإنترنت			

لا	لا أعرف	نعم	الفقرة	الرقم
			تقوم الإدارة المدرسية بتسجيل كافة الدروس المقدمة عن بُعد ومراجعتها للتأكد من استمرار العملية التعليمة بكفاءة	15.
			تعتقد بأن تكلفة حزمة الإنترنت التي تدفعها المدرسة مرتفعة جداً	16.
			تعتقد بتدني مهارات الاتصال والتواصل ما بين المعلمين والطلبة	17.
			تفضل أن تتوقف عملية التعليم عن بُعد	18.
			تعتقد بأن بيئة التعليم عن بُعد غير محفزة	19.
			تعتقد بوجود ضعف في حافزية المعلمين أثناء التعليم عن بُعد	20.
			من الصعب الاستمرار في التعليم الإلكتروني لفترة طويلة	21.
			تعتقد بأن اللوائح والتعليمات الصادرة من وزارة التربية والتعليم الفلسطينية لا تتناسب مع مدرستك	22.
			تعتقد بأن وزارة التربية والتعليم الفلسطينية هي المسؤولة عن ضعف مخرجات التعليم لدى الطلبة نظراً لفرضها أسلوب التعليم الإلكتروني بشكل مفاجئ وبدون أية تحضيرات مسبقة	23.
			تسببت جائحة كورونا بمشاكل في العملية التعليمية	24.
			تعتقد بأن التعليم الإلكتروني مفيد جداً في ظل تفشي جائحة كورونا	25.
			تسببت جائحة كورونا بالضغط والتوتر لدى المعلمين والطلبة	26.
			أدت جائحة كورونا إلى تدني التفاعل ما بين المعلمين والطلبة	27.
			تسببت جائحة كورونا بعدم المساواة بين الطلبة نظراً لعدم امتلاك بعض الطلبة مهارات الاستخدام عن بُعد	28.

مع الشكر الجزيل

معلومات عامة:

الاسم:ـــــــــــــــــــ

رقم الهاتف: ـــــــــــــــ

عدد الأبناء الملتحقين بنظام التعليم عن بعد ـــــــــــــــ

السؤال الأول:

هل تعتبر تجربة الدراسة عن بعد مناسبة لكل الطلاب؟

السؤال الثاني:

هل يحصل الطالب على نفس المساعدة خلال التعليم أونلاين كما يحصل عليها داخل الصف؟

السؤال الثالث:

هل يعتبر التعلم عن بعد بنفس كفاءة وفاعلية التعلم المدرسي؟

السؤال الرابع:

هل يواجه ابنك/ ابنتك أي مشاكل في التعامل مع أدوات التعليم عن بعد؟ إذا كان الجواب نعم فأرجو إعلامنا بذلك.

السؤال الخامس:

هل تنمي الدراسة عن بعد مهارات الطلاب تماماً كما يفعل التعليم في المدرسة؟

السؤال السادس:

من خلال تجربتك في التعلم الإلكتروني ، ما هي مزايا وعيوب التعلم عبر الإنترنت؟

الملخص

أدى انتشار جائحة كورونا دولياً إلى فرض التعليم الإلكتروني في المدارس بهدف متابعة العملية التعليمية، وفي فلسطين، قامت وزارة التربية والتعليم الفلسطينية بفرض التعليم الإلكتروني على المدارس الحكومية والخاصة. وفي هذا الصدد، هدفت الدراسة الى التعرف إلى واقع التعليم الإلكتروني في المدارس الأساسية في فلسطين. ولتحقيق أهداف الدراسة استخدمت الباحثة المنهج الوصفي التحليلي، حيث صممت ثلاثة أدوات للدراسة، وتم توزيع الاستبانات على عينة عشوائية قوامها (307 طالباً وطالبة، 73 معلماً ومعلمة، 10 مدراء ومديرات) في المدارس الأساسية في فلسطين وتوصلت الدراسة إلى مجموعة من النتائج من أبرزها:

- جاء ترتيب الجاهزية نحو التعليم الإلكتروني تنازلياً كالآتي (المعلمين، مديري المدارس، الطلبة).

- هناك اتجاه مرتفع لدى معلمي المدارس الأساسية نحو التشريعات الحكومية وقوانين المدارس المطبقة في ظل تفشي جائحة كورونا أعلى منها لدى الطلبة ومديري المدارس.

- هناك تأثير مرتفع لجائحة كورونا على العملية التعليمية، وقد جاء ترتيب هذا التأثير تنازلياً على مديري المدارس، ثم المعلمين، ثم الطلبة.

- وجود علاقة دالة إحصائياً لدى طلبة المدارس الأساسية بين جاهزيتهم لتطبيق التعليم الإلكتروني وتأثير جائحة كورونا على العملية التعليمية، وعدم وجود علاقة دالة إحصائياً لدى المعلمين ومديري المدارس.

- وجود علاقة دالة إحصائياً لدى الطلبة ومديري المدارس بين جاهزيتهم للتعليم الإلكتروني وبين التشريعات الحكومية والقوانين المدرسية، وعدم وجود فروق دالة إحصائياً من وجهة نظر المعلمين.

- هناك درجة مرتفعة لدى الطلبة الذكور أعلى منها لدى الطالبات نحو واقع التعليم الإلكتروني (الجاهزية، التشريعات والقوانين، تأثير الجائحة على العملية التعليمية).

- هناك فروق دالة إحصائياً بين إجابات الطلبة نحو واقع التعليم الإلكتروني تعزى لمتغير نوع المدرسة ولصالح المدارس الحكومية.

- هناك فروق دالة إحصائياً بين إجابات الطلبة نحو جاهزيتهم للتعليم الإلكتروني تعزى لمتغير مكان حضور الحصة الصفية، وجاءت هذه الفروق لصالح فئة الحضور (في المنزل).

- هناك فروق دالة إحصائياً بين إجابات الطلبة نحو مدى تأثير جائحة كورونا على العملية التعليمية تعزى لمتغير مكان حضور الحصة ولصالح الحضور في (المدرسة أو المنزل).
- توجد قدرة جيدة جداً في استخدام الأجهزة التكنولوجية، وقد جاء ترتيبها تنازلياً كالآتي (المعلمين، الطلبة، مديري المدارس).
- يوجد تفضل لدى الطلبة والمعلمين ومديري المدارس نحو استخدام تطبيق زووم في التعليم الإلكتروني.

وبناء على هذه النتائج، توصي الدراسة مديري المدارس العمل على تطوير البنية التحتية وتوفير الموارد المناسبة لتطبيق التعليم الإلكتروني، مع تدريب المعلمين والطاقم الإداري، فضلاً عن توفير الأجهزة والأدوات والتطبيقات المناسبة، كما توصي الدراسة المعلمين تدريب أنفسهم على كيفية استخدام تطبيقات التعليم الإلكتروني، وأوصت الدراسة طلبة المرحلة الأساسية الاستفادة من التعليم الإلكتروني في تطوير مهارة التعلم الذاتي، كما أوصت الدراسة وزارة التربية والتعليم الفلسطينية تقييم التجربة الفلسطينية في التعليم الإلكتروني وذلك لبيان نقاط القوة والضعف مع تطوير الأدوات والأجهزة اللازمة لتطبيق التعليم الإلكتروني بكفاءة وفاعلية.

الكلمات المفتاحية: التعليم الإلكتروني، التشريعات الحكومية، القوانين المدرسية، التعليم الأساسي، جائحة كورونا.