



**The Experiences and Challenges of Grade 1–4 Teachers,
Principals, and Parents in Ramallah and Al-Bireh District
Implementing Online Learning During COVID–19 Pandemic**

تجارب وتحديات معلمو ومديرو وأولياء أمور الطلبة في المرحلة الاساسية الدنيا في

منطقة رام الله والبيرة في التعلم عبر الإنترنت أثناء جائحة كورونا

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Birzeit University

Palestine

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College of Graduate Studies
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Index

Abstract.....	V
ملخص الدراسة.....	VI
Research Problem	3
Research Questions.....	4
Definition of Terms	4
Operational definitions	5
Research Objectives.....	5
Significance of the Study.....	6
Limitations and Delimitations of the Study.....	6
Theoretical Framework.....	8
TPACK Conceptual Framework.....	8
Piaget's Theory of Cognitive Development	12
Literature Review	15
What is COVID-19 ?.....	15
E-learning or Online Learning	16
Online Learning Types.....	17
Effectiveness of the Online Learning.....	17
Advantages of Online Learning	18
Global Online Learning Experiences during COVID-19	19
Palestinian Schools' Experiences with Online Learning During COVID-19	21
School Principals' Experiences and Roles in Online Learning during COVID-19.....	22

Grades 1-4 Online Learning Needs and Challenges	23
Challenges faced Online Learning During COVID-19.....	27
Technological Infrastructure and Internet Access Challenge.....	27
Students' Related Challenges	28
Teachers' Related Challenge	30
Parents' Related Challenge	31
Financial Support Challenge	32
Curriculum Challenge	32
Role of School Principals toward Students and Teachers.....	33
Psychological support.....	33
Academic support.....	34
Resources support.....	35
Summary.....	35
Study Population and Participants	37
Context of the study.....	40
Instruments of Study.....	40
Instrument's Trustworthiness and credibility	41
Data Analysis.....	42
Online learning Experiences.....	44
Teachers Online learning Experiences	45
Parents Online learning Experiences	46
School Principals Online Learning Experiences.....	48
Challenges Faced by Teachers in Online Learning	50
The Implementation Stage	53

Challenges Faced by Parents in Online Learning	60
Technical Problems	60
Academic Problems.....	61
Psychological Problems	63
Poor Planning	64
Teachers Readiness Problems	65
Technical problems	66
Psychological problems.....	67
Parent Related Challenges.....	68
Poor Planning	68
Academic problems	69
Psychological Support.....	71
Academic Support	72
Technical Support.....	73
Experience	75
Teacher's Experience.....	75
Parents Experience	77
School Principals Experience	78
Challenges	82
Internet Access	82
Technical Support Problems	84
Teachers' Related Challenges	86
School Curricula.....	87
Students' Related Challenges.....	90

Learning Outcomes and Assessment Methods.....	91
Planning and Readiness.....	92
School Principal Support	93
Finally	94
Recommendations.....	96
References.....	98
Appendices	114

Abstract

This study was aimed at exploring the online learning experiences and challenges that Palestinian teachers, parents, and school principals faced at grade 1–4 schools in the Ramallah school district during the school closure of the COVID-19 pandemic era. The study also examined the role of the school principal and the support provided to teachers and students in terms of academic, technological, and psychological support. Accordingly, the researcher adopted the qualitative research method by conducting semi-structured interviews. Twenty-five teachers, school principals, and parents were purposefully selected from five public schools in the Ramallah district. Using a thematic analysis approach, the results of this study showed that nearly all of the participating teachers and parents had negative attitudes toward online learning, but the school principals felt positive toward it. Participating teachers reported that they faced many challenges related to technical problems, teachers' problems, students' problems, and parents' challenges. Also, the parents faced some challenges related to academic, technical, psychological, readiness, and teacher-related problems. But school principals faced problems related to technical, psychological, parent-related, readiness, academic, and teacher-related problems. Many recommendations were given .

ملخص الدراسة

هدفت هذه الدراسة إلى استكشاف تجارب التعليم الإلكتروني وتحدياته التي واجهها المعلمون الفلسطينيون وأولياء الأمور ومديرو المدارس في المدارس الحكومية الأساسية الدنيا في محافظة رام الله والبيرة خلال إغلاق المؤسسات التعليمية في فترة جائحة كورونا. كما تناولت الدراسة دور مدير المدرسة وطبيعة الدعم الذي يقدمه المدير للمعلمين والطلبة سواء كان أكاديمياً أو تكنولوجياً أو نفسياً. تبنت الباحثة أسلوب البحث النوعي وقامت بإجراء مقابلات شبه منظمة. تم اختيار (خمسة وعشرين) معلماً ومديراً وولي أمر من خمس مدارس حكومية في منطقة رام الله. كما قامت الباحثة باستخدام منهج التحليل الموضوعي لتحليل البيانات، أظهرت نتائج هذه الدراسة أن جميع المعلمين وأولياء الأمور المشاركين تقريباً لديهم اتجاهات سلبية تجاه التعلم الإلكتروني، بينما كانت اتجاهات مديري المدارس إيجابية. أفادت النتائج أن المعلمين المشاركين واجهوا العديد من التحديات (مرتبة من الأعلى إلى الأقل تأثيراً) وهي كالتالي: المشاكل الفنية، ومشاكل متعلقة بالمعلم، ومشاكل متعلقة بالطلاب، ومشاكل متعلقة بأولياء الأمور. كما واجه أولياء الأمور بعض التحديات المتعلقة بالمشكلات الأكاديمية والتقنية والنفسية والجهوزية والمشكلات المتعلقة بالمعلم. لكن مديري المدارس واجهوا مشاكل تتعلق بالناحية الفنية والنفسية ومشاكل متعلقة بالأهالي ومشاكل متعلقة بالاستعداد والجهوزية وأخرى أكاديمية ومشاكل متعلقة بالمعلمين. كما تم تقديم بعض المقترحات.

Chapter One

Introduction

Grades 1-4 are seen as a significant period in education because learners are transitioning from informal to formal education and from affective learning to cognitive learning (Skouteris et al., 2012). Children in this stage are less dependent on their parents but are still unable to learn on their own. Because of this, parents and teachers' direction has a crucial influence on the development of the children's social, behavioural, and even cognitive skills (Jennings & DiPrete, 2010).

The COVID-19 pandemic in December 2019 caused unprecedented global disruption possibly the worst socioeconomic disruption since WWII (Kaisara & Bwalya, 2021). Additionally, the pandemic had a detrimental effect on educational systems around the world. The COVID-19 protocol or regulations were put in place by the national governments as a reaction to COVID-19 and to stop its proliferation. This includes the choice to implement stringent guidelines under a state of emergency in order to discourage social gatherings and encourage social isolation. According to estimates from the United Nations Educational, Scientific, and Cultural Organization (UNESCO), 1,184,126,508 pupils worldwide were affected by school closures as of July 8, 2020, and started a period of home quarantine. 61 nations have announced the total closure of their educational institutions. The best method for continuing education during the pandemic was online learning. While 63 million educators around the world were forced to change their traditional face-to-face academic model practices and traditional classes were closed (UNESCO, 2020).

The Palestinian government imposed a 30-day state of emergency on March 6, 2020, that resulted in the countrywide closure of all schools, the suspension of in-person instruction,

and a reduction in institution operating hours. By calculating only the first semester grades for all grades and deciding to only deliver the committee exams to the twelfth grade, the closure of schools was extended to the end of the academic year. Teachers received a brief online introduction to Google Forms and the Zoom platform in June 2020. Then, in August 2020, in order to get ready for the new academic year, teachers received training on how to use the Microsoft "Teams" platform. Prior to the Corona outbreak, online learning was not available in Palestinian schools. A basic introduction to online learning, the Zoom platform, Google Forms, Google Drive, and the Teams platform have to be given to instructors as a result, per the Ministry of Education's requirements. In an effort to prevent potential educational harm and save the educational process, it was subsequently imposed as a uniform educational platform for all Palestinian schools.

The COVID-19 pandemic has caused significant changes in the education sector; additionally, the changes in education have impacted teachers, parents, school principals, and students. The online learning system, which has been adopted during the Closing of COVID-19 Pandemic and allows people to learn at any time and location without leaving their homes, according to Garbe et al. (2020), also presents a chance to facilitate learning for people who live in outlying places and for people with physical and health conditions without requiring them to leave their homes (Adedoyin & Soykan, 2020). Likewise, internet learning makes it easier for students to discover material quickly and conveniently. It also enables teachers to employ a variety of teaching techniques and strategies, as well as record lessons to be used as a resource in the future to enable students to replay the lesson whenever they need it. This helps students develop their IT skills, which are necessary for having a successful career in the future (Graham, 2019).

Despite the benefits of online learning, there were some challenges. Such problems include those related to planning, putting plans and policies into action, and assessment (Toquero,

2020). Another study found that obstacles to online learning were in the infrastructure, evaluation, communication, and support systems, in addition to educational, administrative, organizational, and psychological obstacles. Also, teachers had a far harder time than in face-to-face classes getting students' attention and controlling their behavior; moreover, in online learning programs, inadequate training sessions on using the online learning platform were given to teachers and students (Sarvestani et al., 2019). Additionally, in some online learning situations, there could be a lack of cooperation between the administration and the faculty. Online students may experience slow internet speeds and internet disconnections while enrolled in online courses. Inadequate assessment abilities in an online learning environment, a lack of access to library resources and databases, and social isolation may also be problems for them. These factors raise their risk of developing mental illnesses like depression, stress, and anxiety (Sarvestani et al., 2019). Also important to consider are the worries that students have about security and data privacy (Hamzeh, 2011). The inability of teachers to create electronic content in a professional manner is another issue (Alqiam, 2021). In addition to that, parents struggled to manage their children's learning outcomes, provide incentives, acquire access, and balance their own obligations. On the other side, school administrators had to come up with plans to deal with the disruption in the classroom (Nguyen, 2015). According to Itmeizeh and Farrah (2021), some teachers oppose online learning while others support it. On the basis of its advantages, proponents backed it, while opponents questioned its efficacy.

Research Problem

The COVID-19 pandemic has forced all schools worldwide to switch to online instruction. All Palestinian teachers have been abruptly asked to start teaching students using the Microsoft Teams Platform. The researcher, like other Palestinian teachers, faced a

number of challenges related to equipment availability, technical support, teacher training and preparation for online learning, curriculum coverage and delivery, instructional strategies, and student assessment. In spite of the training that the ministry tried to conduct for its teachers and educational school principals, it was a challenging experience. The current study focuses on the challenges and experiences that Palestinian teachers, school principals, and parents encountered in grades 1-4.

Research Questions

This study addressed the following questions:

Question #1: How did Palestinian grade 1–4 teachers, parents, and school principals experience online learning during the COVID–19 pandemic period?

Question #2: What were the main challenges that Palestinian grade 1–4 teachers, parents, and school principals faced in online learning during the COVID-19 pandemic period?

Question #3: What kind of support did school principals provide to their teachers and students to assist them with online learning?

Definition of Terms

The definition of the terms used by the researcher was as follows:

Online learning refers to the process of learning through using the internet (Nguyen, 2015).

E-learning is "an educational system that relies on modern communication technology, computers, and their accessories to provide the scientific material from lectures, lessons, discussions, exercises, and tests, whether in a simultaneous or asynchronous manner" (Al-Hosban 2014).

COVID-19 Pandemic refers to the disease caused by the SARS-CoV-2 influenza virus and coronavirus, which the World Health Organization has designated as COVID-19 (PAHO, 2020). The term "pandemic" means that the epidemic has spread to several countries, continents, or the whole world. This is a severe acute respiratory syndrome that requires preventive and compulsory social isolation.

Operational definitions

Online Learning : refers to electronic learning experiences for grade 1-4 parents, teachers, and school principals during the coronavirus crisis in Palestine.

Challenges : This term refers to the obstacles that faced grade 1-4 parents, teachers, and school principals in Palestine during the coronavirus crisis in online learning, which will be measure by the interview questions.

Experience: means the practical knowledge, skill, or practice derived from direct observation or participation in the event of online learning to grade (1-4) students by teachers, parents, and school principals during the coronavirus crisis.

Grades 1-4 refer to students in Palestinian schools from grade 1 (age six) to grade 4 (age ten).

Research Objectives

This study aimed to explore the online learning experiences and challenges that Palestinian teachers, parents, and school principals faced in grades 1-4 in the Ramallah and Al-Bireh school district during the school closure of the COVID-19 pandemic era. also examined the role that school principals had in online learning throughout the pandemic and

the support that they provided to teachers in terms of education, technology, and emotional support.

Significance of the Study

The importance of the study comes as a result of the pandemic diseases that have affected the world and Palestine as well. It is also significant because it focuses on teachers in grades 1-4, school principals, and parents. The study is significant because it focuses on parents' role in the education of their children in grades 1-4, as it plays a major and important role in the establishment stage of children's education, particularly in the online learning experience during COVID-19.

The findings of this study may benefit decision-makers, educational leaders, and anyone else interested in learning about education for students in grades 1-4 by preparing for effective online learning and reducing any potential difficulties that may arise for teachers, parents, and principals.

Limitations and Delimitations of the Study

The limitations of this study are summarized as follows:

Sample limitation: This study targeted ten grade 1–4 school parents who helped their children with eLearning during the coronavirus crisis in Ramallah, Palestine. In addition, ten grade 1–4 school teachers taught their students online learning during the coronavirus crisis in Ramallah, Palestine, and five grade 1–4 school principals in Ramallah, Palestine.

Thematic Limits: This study highlighted the online learning experience and challenges faced by 1-4 grade school teachers, parents, and school principals in Ramallah, Palestine, during the coronavirus pandemic.

Instrument limitation: This study was conducted using a semi-structured interview.

Chapter Two

Theoretical Framework and Literature Review

In this chapter, the researcher identifies the theoretical framework for this study by examining TPACK as a conceptual framework. This chapter also includes a review of the literature and previous studies on COVID-19, E-learning or online learning as terms, synchronous and asynchronous types of online learning, benefits and challenges of online learning, global and Palestinian experiences, and the role of school principals toward students and teachers.

Theoretical Framework

TPACK Conceptual Framework

Mishra and Koehler (2006) proposed a conceptual framework, which they have named Technological Pedagogical and Content Knowledge (TPACK). They have developed Shulman's formulation of Pedagogic Content Knowledge (PCK) by introducing "technology knowledge" as an explicit component. This TPACK framework, it is argued, can enable a more theoretically robust way of designing, implementing, analysing, and evaluating the use of Information and Communication Technologies (ICTs) in education.

Supporting this concept is the Technological Pedagogical and Content Knowledge (TPACK) conceptual framework, Figure 1; (Koehler, Mishra, and Yahya, 2007), which was designed to facilitate the process of embedding technology within the learning environment. The framework is designed to illustrate the interrelationships between users, tools, and practices and support the view that "good teaching requires an understanding of how

technology relates to pedagogy and learning content." With pedagogical practice in mind, it is not what technology can do; it is the impact of this upon teaching and learning in the eyes of both teachers and students. Koehler, Mishra, and Yahya (2007) focus on the "core" areas of knowledge: Content, Pedagogy, and Technology. These three core elements connect and interact with each other in a dynamic and transformational equilibrium.

The TPACK strongly supports the view that online learning should not be seen as an adjunct or a new paradigm but as an integral part of educational delivery closely aligned with the learning outcomes and pedagogical approach selected by the teacher. In order to achieve a close alignment between the pedagogical approach and the use of technology, set out to construct a Digital Learning Framework (DLF) with the purpose of indicating how specific technological devices and systems can be used to enhance any learning environment. (Simpson & Whitehouse, 2016).

As represented in the following Figure (2.1) (Mishra and Koehler, 2006) the TPACK framework is constituted of seven types of knowledge, three basic forms (content, pedagogy, and technology), and their mutual integrations, which were summarized as follows :

Content knowledge (C or CK) regards "knowledge about the actual subject matter that is to be learned or taught," which includes "knowledge of central facts, concepts, theories, and procedures within a given field; knowledge of explanatory frameworks that organize and connect ideas; and knowledge of the rules of evidence and proof" (Mishra & Koehler, 2006, p. 1026).

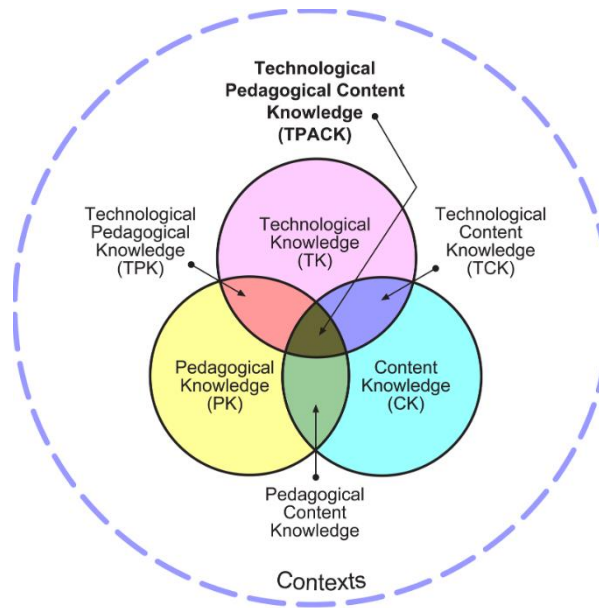


Figure (2.1): The Technological Pedagogical and Content Knowledge (TPACK) conceptual framework

Pedagogical Knowledge (P or PK) defined by Mishra and Koehler (2006) as the deep knowledge about the processes and practices or methods of teaching and learning and how they encompass, among other things, overall educational purposes, values, and aims." This is a generic form that "includes knowledge about techniques or methods to be used in the classroom; the nature of the target audience; and strategies for evaluating student understanding. A teacher with deep pedagogical knowledge understands how students construct knowledge and acquire skills, develop habits of mind, and have positive dispositions toward learning. As such, pedagogical knowledge requires an understanding of cognitive, social, and developmental theories of learning and how they apply to students in their classroom (pp.1026–1027).

Also, Mishra and Koehler (2008) pointed out that technology knowledge (T or TK) refers to knowledge about standard technologies, such as books, chalk, and blackboards, as well as more advanced technologies, such as the Internet and digital video. This would involve the skills to operate particular technologies. In the case of digital technologies, this would include knowledge of operating systems and computer hardware, as well as the ability to use standard software tools, including web browsers, email programs, and word processors. It includes basic knowledge about installing and upgrading hardware and software, maintaining data archives, and staying up-to-date about ever-changing technologies (p. 4).

In the TPACK framework (Figure 2.1), there are three components of knowledge represented by the three circles: Technology, Pedagogy, and Content. Equally important in this framework is the overlap between these components of knowledge. The first intersection in the framework is between pedagogy and content knowledge, or Pedagogical Content Knowledge (PCK or PC) (Mishra & Koehler, 2008).

Pedagogical content knowledge (PCK) In considering the relationship between content and pedagogy, the key question is how disciplines differ from each other and whether disciplines can or should be taught through the same instructional strategies. If disciplines are the same, then mathematics can be taught using the same instructional strategies that we use to teach architecture or music. (Mishra & Koehler, 2008, p. 8).

Technological content knowledge (TCK) is an understanding of the manner in which technology and content influence and constrain one another. Teachers need to master more than the subject matter they teach; they must also have a deep understanding of the manner in which the subject matter (or the kinds of

representations that can be constructed) can be changed by the application of technology. Teachers need to understand which specific technologies are best suited for addressing subject-matter learning in their domains and how the content dictates or perhaps even changes the technology. (Mishra & Koehler, 2008,p. 9).

Technological pedagogical knowledge (**TPK**) is an understanding of how teaching and learning change when particular technologies are used. This includes knowing the pedagogical affordances and constraints of a range of technological tools as they relate to disciplinarily and developmentally appropriate pedagogical designs and strategies. (Mishra & Koehler, 2008).

Piaget's Theory of Cognitive Development

Piaget is recognized as one of the most influential cognitive theorists in the field of child development (Piaget, 2000). An important implication of Piaget's theory is the adaptation of instruction to the learner's developmental level (Piaget, 1983). The content of instruction needs to be consistent with the developmental level of the learner. The teacher's role is to facilitate learning by providing a variety of experiences. The teacher should obviously provide opportunities for learners to explore and experience, and by doing so, she is encouraging learners' new understandings. Piaget emphasizes the opportunities that allow learners of different cognitive levels to work together and encourage less mature students to advance in order to create understanding. Piaget (1983) states that the further implication for instruction is the use of concrete, hands-on experiences to help learners learn additional suggestions. Piaget also emphasizes that teachers should allow opportunities to classify and group information to facilitate assimilating new information with previous knowledge.

Present problems that require logical understanding. Piaget distinguished four primary stages of cognitive development: sensorimotor, preoperational, concrete-operational, and formal-operational. (Ojose, 2008).

Preoperative Stage, from 2 to 7 years The characteristics of this stage include an increase in language ability, symbolic thinking, an egocentric perspective, and limited logic; moreover, the child starts to associate two separate events that are otherwise unrelated; they also fail to understand cause-and-effect relationships; furthermore, the child believes that inanimate objects have life and are capable of actions; also, the child believes that environmental objects are controlled by people. During this stage, the child believes that others see, feel, and think exactly the same as himself; moreover, the child develops the ability to make use of symbols in communication; the child develops the ability to focus attention on only one aspect of a situation at a time; the child cannot reverse in his mind what he does or knows; the child also begins to ask a lot of questions out of curiosity; the child does not have the ability to classify things into categories; and there is a lack of logic associated with this stage of development (Piaget, 1977). Teaching students in this stage of development should employ effective questioning about characterizing objects. (Thompson, 1990).

Concrete Operational Stage: From 7 to 11 years, children in this stage apply logical thinking and are characterized by reasoning, propriety, reversibility, cause-and-effect relationships, classification, transitivity, and the elimination of egocentrism (Miller 2010). In addition, the child develops the ability to focus his attention on many aspects of a situation at the same time; moreover, the child can reverse the thoughts in his head; he knows the way from home to school; he can imagine the reverse way from school to home; moreover, the child can understand cause-and-effect relationships and develop the concept

that there is a cause for a certain event. At this stage, it is understood that the cause of the clouds in the sky is rain. Also, the child comes to some conclusions by logically combining relationships. Classification: the child can classify things based on their properties. The child develops the ability to order things according to a certain order, from small to large, from thin to thick, and from light to heavy (Piaget, 1977).

Formal Operations Stage At this stage, the child is capable of forming hypotheses and deducing possible consequences, which allows him to construct his own mathematics. Furthermore, the child typically begins to develop abstract thinking patterns in which reasoning is carried out with pure symbols without the need for perceptual data. For example, the formal-operational learner can solve $x + 2x = 9$ without having to refer to a concrete situation presented by the teacher; reasoning skills at this stage refer to the mental process involved in generalizing and evaluating logical arguments and include clarification, inference, evaluation, and application (Anderson, 1990). According to Lazarus (2010), this stage occurs in early adolescence, and the child engages in more abstract, sophisticated thinking. At this point, the child's cognitive structures resemble those of an adult and include conceptual thinking. This is the highest level of thinking, and a child is able to go beyond concrete evidence. The learner at this stage is able to focus his or her thoughts on things that do not exist, and the child can now solve a variety of tasks that require the use of hypotheses. The learner's thinking can be encouraged by placing him in a situation where he must solve problems.

Literature Review

What is COVID-19 ?

The coronavirus disease is also referred to as COVID-19, with the letters CO standing for the corona, VI for the virus, D for the disease, and the number 19 denoting the year 2019 (UNICEF, 2020, as referenced in Kwabena & Boateng, 2020). According to the World Health Organization (WHO), a coronavirus is an infectious condition brought on by a recently identified coronavirus (WHO, 2020). This emergency relates to the global spread of the COVID-19 virus, which is regarded as a respiratory illness. This virus emerged for the first time in Wuhan, China, in December 2019. The incubation period of this virus ranges between 2 and 14 days. It may progress to Acute Respiratory Distress Syndrome (ARDS), pneumonia, and multi-organ dysfunction. The fatality rate of the latter virus range, as reported by Alqiam (2021) and Singhal (2020), is between two and three percent. That means that there was a need to isolate the infected people.

COVID-19 virus has spread over the planet, and as a result, both the world and mankind have lost their normal rhythm. It has an impact everywhere, but the educational systems in each nation are particularly affected, and it has primarily affected the teaching-learning and assessment processes (Pokhrel & Chhetri, 2021). In order to continue the education process, governmental and non-governmental organizations, stakeholders, teachers, and students have joined online teaching-learning platforms, and as a result, face-to-face or physical classroom learning has shifted to online learning from the primary to the higher education system through information and communication technology (Dhawan, 2020).

E-learning or Online Learning

According to the reviewed literature, there are many words that are used to denote the same thing, and there is an inadvertent dispute regarding how to conceptualize this learning modality. The terms "online learning" or "e-learning," "distance education," "distributed learning," "web-based learning," "mobile learning," "technology-enhanced learning," and "virtual learning" are used in some research studies that have been written by highly cited authors or published in scholarly journals (Anderson, 2004; Bayne, 2015; Berge, 1999; Chang, 2016; Cook, 2007; Emerson & MacKay, 2011; Hill et al., 2009; McKimm et al., 2013; Rodrigues et al., 2019; Wang et al., 2009; Weller, 2007; Zawacki-Richter et al., 2017; Zhao et al., 2017; Zhao et al., 2021).

Singh and Thurman (2019) reviewed the literature related to the definitions of online learning and revealed (46) definitions with (18) synonymous terms. The definition of online learning adopted by Singh and Thurman is that education is provided in an online environment through the use of the internet for teaching and learning. This includes the students' autonomous online learning that takes place. They said that by using a single internet-connected device (such as a smartphone, computer, laptop, etc.) with an internet connection, educators can create training modules that improve learning and interaction in synchronous or asynchronous environments. While others define online learning simply as the process of learning through the internet (Nguyen, 2015), According to Al-Hosban (2014), e-learning is an educational method that uses computers, contemporary communication technologies, and their related equipment to deliver scientific content from lectures, lessons, discussions, exercises, and examinations, whether in a simultaneous or asynchronous manner.

The researcher found that the definitions of "online learning" have concentrated on particular elements endorsed by Amer (2013), namely that the teacher and student are physically separated from one another, which makes communication between them indirect and enables students to learn at their own pace, wherever they are, whenever they need to, according to their circumstances. The other element was how well-designed contemporary media and communication tools let students use a variety of instructional media, including printed, electronic, recorded, and visual resources, to impart knowledge to them.

Online Learning Types

There are two types of online learning: asynchronous and synchronous. According to Ramadhan and Marwantika (2020), asynchronous and synchronous online learning both exist, but synchronous learning occurs when educators and students are learning at the same time. This enables online interaction between educators and students, while asynchronous learning, on the other hand, allows students to pursue a variety of learning routes while still receiving content from teachers. Because students can access course materials at any time and from any location, asynchronous training is common in online education. Two considerations must be made when creating an online learning system: the target students and the anticipated learning results.

Effectiveness of the Online Learning

For online learning to achieve its goals, the following conditions must be met: for example, in the infrastructure, there should be the existence of technical support and central administrative staff, and there should also be enough essential equipment, including service devices, with the availability of the Internet (Mahamdeh, 2005). Another condition must be

met by the teacher, who must have the ability to teach online and use modern teaching techniques (Al Hassan, 2010); also, the teacher must encourage the students and generate knowledge and creativity (Kotaita, 2009); furthermore, the teacher should adopt the roles of facilitator, evaluator, leader, and driver of classroom discussions (Abdulaziz, 2008). The learner must also meet the following conditions: the learner should have the skills of self-learning, communication skills, critical thinking, teamwork, and the ability to use computers (Amer, 2007; Jad Asim, 2015).

Advantages of Online Learning

The online learning system is incredibly flexible and enables students and teachers to obtain as many sources of knowledge regarding the subject as possible since it uses electronic learning (Ramadhan & Marwantika, 2020). Therefore, online learning also enables learning to take place anytime, anywhere, and provides all students with the possibility to select a place and time that are appropriate for learning (Akuratiya & Meddage, 2020; Baczek et al., 2020; Dhawan, 2020; Hoq, 2020; Prestiadi, 2020). From the parents' perspective, the usefulness of online learning is that it could make students more independent, improve their IT skills, deepen their understanding through reflection and interaction, and strengthen the parents' sense of responsibility (Shraim & Crompton, 2020). In addition, online learning has another important benefit, which is that it is a relatively cheaper mode of education regarding the low cost of transportation and accommodation (Akuratiya & Meddage, 2020; Baczek et al., 2020). Other advantages mentioned by Adeoye et al. (2020) and Dhawan (2020) include the wide availability of courses and content and immediate feedback. According to Al-Kayed (2020), online learning creates an interactive learning experience between the teacher and the learner, as well as between the learner and

his colleagues. Also, Zalloum (2021) added that online learning develops students' communicative competence. Another advantage of online learning is that it transforms students into active learners who search for knowledge by themselves and study independently without relying fully on the teacher, which enables them to improve their learning skills (Luaran et al., 2013). In the same context, online learning could improve students' independent learning skills, communication skills, and IT skills (Slimi, 2020). Lukas & Yunus (2021) added another advantage to online learning, which has the feature that teachers can record online classes and then review and reflect on those classes, which certainly improves online learning teaching skills. This will enable students to access those online learning classes anytime and anywhere they want to (Kwofie & Henten, 2011; Mahyoob, 2020).

Global Online Learning Experiences during COVID-19

Many countries closed their schools and institutions as a response to the COVID-19 pandemic. According to data from UNESCO 2020, almost 1.7 billion students worldwide were unable to attend school or college. In the same context, in a report published by UNICEF (2020) about the experience and percentage of students in the world who were unable to access distance learning during school closures, based on data from 100 countries, it said that no less than a third of school students in the world were unable to access distance learning during closure. As a result, they switched to offering lessons online, and the students fully embraced homeschooling. (Grätz and Lipps, 2020).

According to multiple studies, the digital change brought on by the COVID-19 pandemic was largely favorable or effective and encouraged more students to take classes online. According to some studies, online learning has increased accessibility and flexibility while

also allowing education to continue during these historic times of forced closure. (Bdair, 2021; Iglesias-Pradas et al., 2021; Mukhtar, 2020). Therefore, many studies came to the conclusion that online learning was efficient and was the main way to continue learning throughout the COVID-19 pandemic. A study conducted in Georgia confirmed that the quick transition to online education was successful and that the experience gained can be used in the future. (Basilaia & Kvavadze, 2020) Also, other studies showed that online learning during the COVID-19 pandemic was a beneficial experience but less preferable for many students compared to face-to-face learning, despite its challenges, and that's why it was considered to be the best solution during the COVID-19 pandemic era. (Aljarrah, 2020; Emblemvag, 2021; Farrah & Al-Bakry, 2020; Hamaidi et al., 2021; Hoq, 2020; Mohammed & Al-Zmammi, 2021; Muthuprasad et al., 2021; Oyediran et al., 2020). In the same context, a study by Lukas and Yunus (2021) showed that online learning during the COVID-19 experience was effective, but with various limitations. In addition to having a good effect, online learning has encountered other challenges that affect students, teachers, school administrators, and parents. (Adeoye et al., 2020).

On the other hand, some studies conducted on online learning during COVID-19 indicated that the experience was bad and less effective when compared to the classroom mode of learning, and the attitudes and impressions of those concerned were negative, mainly because of the lack of readiness for all the stakeholders in primary education. (Alqiam, 2021; Hamad, 2021; Nambiar, 2020; Ramadhan & Marwantika, 2020; Swain, 2021).

Sweden was an exceptional case since their experience was different. Contrary to all countries in the world that recommended the closure of their schools, the Swedish government recommended preschools and compulsory schools stay open during COVID-19 (Ahlström et al., 2020). On March 18th, Sweden's minister of education communicated the

government's first recommendation that schools should remain open. On June 15th, universities, adult education programs, higher education vocational programs, and upper secondary schools resumed operations. However, up until the age of 16 (Grade 9), children in Sweden were still attending school. (Ahlström et al., 2020).

Palestinian Schools' Experiences with Online Learning During COVID-19

The arrival of COVID-19 in Palestine, and consequently the declaration of the state of emergency, was a surprise and a source of confusion for the Palestinian Ministry of Education. The closure of schools entered into force with the declaration of the state of emergency on 3/5/2020, as the MOE announced the closure of schools, institutes, and universities that have turned to online learning. (AMAN,2020).

For the opening of the next academic year in 2021, the government imposed the health protocol for education, then gradually opened classes, starting with grades 1-4 and the Tawjihi class, and combining face-to-face and online learning. MOE(2020). Likewise, the Ministry of Education worked in partnership with UNICEF and UNESCO to train Palestinian teachers on the use of distance education mechanisms, as nearly 35,000 female and male teachers underwent training on the design of distance teaching. (AMAN.2020).

Furthermore, many students were unable to participate in online educational activities during the lockdown because the internet was unavailable, since on 10/20/2020, the Palestinian Central Bureau of Statistics (PCBS) indicated that 51% of Palestinian families with children (6–18) years old who were enrolled in education before the closure participated in educational activities during the closure period, while 49% did not participate

due to the children's unwillingness to carry out the educational activities or due to the parents' inability or knowledge of how to carry out the educational activities.

School Principals' Experiences and Roles in Online Learning during COVID-19

Some reviewed studies described school principals' experiences in the online learning environment as far from ideal because it required them to be humans in an inhuman situation, particularly after appreciating the importance of in-person connection in the educational setting and the difficulty of teaching (O'Connell & Clarke, 2020). While others of the school's principals viewed online learning as an opportunity to embrace new ways of thinking and change the nature of leadership and administrative work in schools, Hauseman et al. (2020). Some school principals believed that the transition to online instruction was difficult for many of the teachers, students, and their families; they also felt the anxiety, stress, and financial hardship that many families were experiencing during the pandemic, so they made a genuine effort to generate policies that were both realistic and accommodating. (Brelsford et al. 2020). Furthermore, the response to the COVID-19 pandemic has resulted in principals experiencing work intensification as they have witnessed an expansion of current roles and responsibilities and are engaging in new job demands. The impact of work intensification has been particularly evident in the following four aspects of school leaders' work: a heightened sense of accountability and responsibility to support staff and students; learning new policies and job demands under tight timelines; a need to engage in transparent and consistent communication with all members of the school community; and modeling and promoting meaningful collaboration (Hauseman et al. 2020).

Concerning the school principal's role in online learning, the primary task and role of a school principal during difficult and unusual days are related to the concept of leadership.

So in addition to the managerial role, a school leader is who supports teachers morally and emotionally. A school leader's role is to communicate with, support, and motivate teachers, with whatever difficulties they face, to carry out the cumbersome tasks assigned to them (Kafa & Pashiardis, 2020). It's also important to identify and solve pressing problems. It is crucial to deal with facts rather than opinions when defining and addressing pressing problems; additionally, the school principal must think strategically and be authentic. In crises, one's demonstration of humanity counts for much in the eyes of those being led. Also important is providing psychological safety in encounters with multiple changes and challenges. Another important role is communicating clearly to keep everyone informed from the outset and to be candid about what is known and what is not known. All media available should be used to communicate. A vital role performed by leaders during crises is helping those around them feel safe by strengthening their respective communities (O'Connell & Clarke 2020). Another important role for school principals, particularly in similar emergent situations, is to anticipate and provide the resources and training, particularly in technology, that teachers and students would need if regular schooling was disrupted. (Brelsford et al., 2020).

Grades 1-4 Online Learning Needs and Challenges

Some reviewed studies described school principals' experiences in the online learning environment as far from ideal because it required them to be humans in an inhuman situation. particularly after appreciating the importance of in-person connection in the educational setting and the difficulty of teaching (O'Connell & Clarke, 2020). While others of the school's principals viewed online learning as an opportunity to embrace new ways of thinking and change the nature of leadership and administrative work in schools, Hauseman

et al. (2020) found that some school principals believed that the transition to online instruction was difficult for many of the teachers, students, and their families; they also felt the anxiety, stress, and financial hardship that many families were experiencing during the pandemic, so they made a genuine effort to generate policies that were both realistic and accommodating. (Brelsford et al. 2020). Furthermore, the response to the COVID-19 pandemic has resulted in principals experiencing work intensification as they have witnessed an expansion of current roles and responsibilities and are engaging in new job demands. The impact of work intensification has been particularly evident in the following four aspects of school leaders' work: a heightened sense of accountability and responsibility to support staff and students; learning new policies and job demands under tight timelines; a need to engage in transparent and consistent communication with all members of the school community; and modeling and promoting meaningful collaboration (Hauseman et al. 2020).

Concerning the school principal's role in online learning, the primary task and role of a school principal during difficult and unusual days are related to the concept of leadership. So in addition to the managerial role, a school leader is someone who supports teachers morally and emotionally. A school leader's role is to communicate with, support, and motivate teachers, with whatever difficulties they face, to carry out the cumbersome tasks assigned to them (Kafa & Pashiardis, 2020). It's also important to identify and solve pressing problems. It is crucial to deal with facts rather than opinions when defining and addressing pressing problems; additionally, the school principal must think strategically and be authentic. In crises, one's demonstration of humanity counts for much in the eyes of those being led. Also important is providing psychological safety in encounters with multiple changes and challenges. Another important role is communicating clearly to keep everyone informed from the outset and to be candid about what is known and what is not

known. All media available should be used to communicate. A vital role performed by leaders during crises is helping those around them feel safe by strengthening their respective communities (O'Connell & Clarke 2020). Another important role for school principals, particularly in similar emergent situations, is to anticipate and provide the resources and training, particularly in technology, that teachers and students would need if regular schooling was disrupted. (Brelsford et al., 2020). Education during a crisis can allay children's fears, as the generalized shock is evident in times like these; when schools are closed, there is no mechanism to support children in a crisis. Through schooling, the children's right to education is protected. A large proportion of the victims in the crisis are school-aged children, and their major need is education because schools provide them with opportunities to meet their friends. There is also the effect of social isolation, considering that schools are places of human interaction and social activity. School closure hinders social contact and interaction, which are crucial to balanced learning and development. (Akinwumi & Itobore 2020).

Children are considered to be the most vulnerable group in society, and they need our assistance and interest. Akinwumi and Itobore (2020) So, one of the significant needs or challenges that arose during the implementation of online learning was the increased and substantial involvement of parents with their children; the children needed their parents' assistance in understanding subjects that were not understood or conveyed well by a teacher, but parents felt that online learning had changed the quality of their children's learning, leading to a decrease in parental support. In addition, some parents' low Internet literacy is an issue (Rasmitadila et al. 2020).

The transition to online learning revealed that families and parents weren't prepared for it, so the education of their children, especially those who took up the responsibility of

homeschooling, suffered. which is considered a daunting task for many parents, even educated ones, because effective teaching requires the possession of adequate pedagogical skills. Online learning has also presented new challenges for parents, such as the equity of access to the devices required for such learning and the need for them to be technologically savvy. Furthermore, basic internet knowledge is required to set up or troubleshoot technical issues relating to online learning. According to Akinwumi & Itobore (2020), parental involvement has been stretched by the need to take on supervisory responsibilities, especially since children have been found to use their devices to play games or chat with friends instead of attending classes. This further compounds the challenge for parents as regards balancing work and homeschooling. (Petrie et al.2020).

Further challenges included getting students used to online learning, which was affected by both internal and external influences. Internal factors are challenges that the student experiences at home, like meddling from family members, which causes students who are learning to not be focused on learning. Another factor is a less conducive home learning environment in which the activities of family members and students cause distraction (Rasmitadila et al., 2020).

Teachers transitioned to online teaching without strategies to help them acquire the skills and mental preparedness for this kind of teaching; thus, most of them have carried out online teaching as though they were in the traditional space-bound classroom. It is essential for teachers to have the necessary technical and pedagogical skills to integrate digital devices into instruction and also develop creative initiatives like play-based collaborative learning (Petrie et al., 2020). Another challenge related to the Grades 1-4 teachers was that they could not fairly conduct assessments in an online environment, including cognitive, affective, and psychomotor aspects. Indeed, teachers often felt that proper assessment of the

cognitive aspect was challenging to do fairly because of the intervention of parents who helped provide answers to the assignments given by a teacher, so assessment of the psychomotor aspect was often better, such as singing or practicing specific movements, because these are based on student abilities without parental intervention when recording (Rasmitadila et al., 2020).

Challenges faced Online Learning During COVID-19

This chapter summarized the challenges and problems that faced online learning during the Corona pandemic, and it was arranged according to the most important and frequent challenges, according to the studies reviewed.

Technological Infrastructure and Internet Access Challenge

The most important and most common challenges that affected online learning during COVID-19 in all countries around the world regarding their economic situation, geographical location, norms, and users' awareness were that poor network connections and the lack of main development infrastructure and internet access were the significant challenges of online learning system adoption (Adeoye et al., 2020; Lukas & Yunus, 2021; Oyediran et al., 2020; Sharim & Crompton, 2020; Subaih et al., 2021; Zalloum, 2021). Even the developed countries of the world, for example, Germany, India, Turkey, the UK, the USA, and China, have considered this challenge the most important challenge in online learning during COVID-19. However, it has had the greatest impact on developing countries. (Chaturvedi et al., 2021; Chen et al., 2020; Dost et al., 2020; Eberle & Hobrecht, 2021; Gupta et al., 2021; Korkmaz & Toraman, 2020; Mishra et al., 2020; Morgan, 2020; Moser et al., 2021; Muthuprasad et al., 2021; Offergeld et al., 2020; Shermila et al., 2021;

Singh et al., 2021; Tang et al., 2021). Accordingly, Mishra et al. (2020) stated that third-world countries are facing challenges in online learning; having a fractured technical infrastructure, a lack of resources, and unstable internet connections were the major factors reducing students' learning outcomes during the COVID-19 pandemic (Adnan & Anwar, 2020; Amir et al., 2020; Muthuprasad et al., 2021; Slimi, 2020). Also, as Adnan and Anwar (2020) mentioned, online learning cannot produce the desired results in underdeveloped countries like Pakistan, where the vast majority of students are unable to access the internet due to technical and financial issues. Others agree with this as well (Anwar et al., 2021; Mukhtar et al., 2020; Oyediran et al., 2020; Silva & Sousa, 2020). According to the studies reviewed, this problem is not only observed in Pakistan as a developing country, but also in Nigeria, Romania, the Philippines, Nepal, Morocco, and Iraq (El Firdoussi et al., 2020; Lapitan et al., 2021; Paudel, 2021; Rahiem, 2021; Roman & Plopeanu, 2021; Tuma et al., 2021). Some studies mentioned additional challenges related to technology infrastructure, such as a lack of equipment for online classes (smartphones, laptops, etc.), or a lack of digital skills by students or teachers, as well as the widening of the digital divide and a lack of necessary devices and equipment (Ramadhan & Marwantika, 2020; Shraim & Crompton, 2020; Zalloum, 2021)

Students' Related Challenges

Students' related challenges were mentioned in a study conducted in Palestine (Subaih et al., 2021), in which the students' commitment to attendance was low. According to this and other studies, the failure to attend all classes, which was the most serious issue confronting students, A study by Lapitan et al. (2021) noticed that the most significant difference between online learning and traditional classroom teaching is that students and

instructors cannot see and communicate with each other the same way face-to-face, and not being able to see each other made it difficult to conclude whether students were paying enough attention. This might prevent effective communication and decrease the effectiveness of student-teacher engagement. Also, Lapitan et al. added that another problem faced by the students is that online learning decreased their interest in learning, and after nearly five months of learning at home, students experienced boredom, as evidenced by the fact that many students contacted the teacher to ask when face-to-face learning would resume. One reason was that they got bored and wanted to meet and play with their friends at school. Another challenge that affected the effectiveness of online learning was the students' ability to use technology (Hofmann, 2014). In the same context, studies have noticed that the accessibility of technological tools may directly impact whether individuals are included or excluded from learning (Chaturvedi et al., 2021; Williamson et al., 2020).

This result was emphasized by Ramadhan and Marwantika (2020). But they added that there were still many students who did not have smartphones or laptops to access online learning. This, of course, hinders student learning. Another issue was raised by Shraim and Crompton (2020): not every child may have a room at home where they can interact with online learning in an effective way. Mseleku (2020) added that there is a lack of physical learning environments and spaces, which caused difficulties for some students who were learning online while the school was under lockdown. Most families in poverty lack a separate space where children can learn quietly. Many times, multiple children have online courses on the same day. Also, Zalloum (2021) emphasized that students have difficulty with a lack of security (noisy surroundings) or their parents' abilities to help them study at home. In comparison to face-to-face students, he said, who received direct physical support from the teacher to explain any unclear concepts and direct their inquiries, online learners had lower

exam scores. Regarding psychological difficulties, like how students' stress and anxiety levels rise as a result of online learning, it makes mental health issues and illnesses more likely to occur. (Alqiam, 2021).

Teachers' Related Challenge

The COVID-19 pandemic had spread quickly, and neither teachers nor the Palestinian Ministry of Education were prepared to deal with the inevitable shift from face-to-face instruction to online learning. Teachers, in particular, have faced numerous challenges and obstacles during the pandemic's first year. According to the findings of the studies, the most significant challenges faced by teachers were their lack of readiness to implement online learning and their insufficient training (Emblemsvag, 2021; Sharim & Crompton, 2020). That was confirmed by researchers (Korth 2009; Ramadhan & Marwantika, 2020), who explained that one of the most important keys to the success of implementing online learning is teacher readiness. Teachers had no experience using instructional resources like multimedia or resolving technical issues while running synchronous lessons. Although almost instructors used social media on their mobile devices, particularly Facebook and WhatsApp, in their daily lives, the majority lacked the skills and knowledge to incorporate it into their teaching activities. (Shraim & Crompton, 2020; Subaih et al., 2021). As Pramana (2021) indicates, teachers suffer from a lack of ability to use information and communication technology. This was confirmed in some studies that found teachers at the primary level are typically confused with the technology required for online learning, but to save their jobs, they are trying hard to learn and practice. In the process, they spend nearly 15–16 hours per day successfully conducting online interactions with students (Mahyoob, 2020; Swain, 2021). Teachers also considered teaching online to

require more work; they lacked confidence in their abilities to do so because of the material's extremely low quality, which had been created in a hurry without instruction or technical support. They experienced the added responsibility of providing instruction during a crisis while also meeting the emotional needs of their students (Bozkurt et al., 2020; Shraim & Crompton, 2020). Student cheating on online exams was another significant issue that most teachers faced. They were also unable to conduct a fair student assessment (Zalloum, 2021). Furthermore, there are assessment challenges, such as the fact that the scores on the online exam system weren't reliable because students couldn't be monitored while taking the exam (Alqiam, 2021). Another challenge announced by the teachers expresses their dissatisfaction with the government's indifference to the educational situation in the face of these sudden and disastrous problems, which is confirmed by (Adeoye et al.2020. Zalloum 2021).

Parents' Related Challenge

According to a study on the transition to online learning, 42 percent of parents did not feel confident in teaching their children at home; they found it difficult to handle this new role and experienced a new division of labor at home, particularly in families with multiple children (Greenhow et al., 2020). Concerns about students' academic progress, socioemotional development, and comprehension of the curriculum, as well as whether the parents are able to help their children study at home, were all raised in a different study that looked at similar problems parents faced. The findings also confirmed the need to balance parental responsibilities, which includes juggling work demands and parental needs; a lack of positive motivation related to digital learners; accessibility; and concerns about students' digital learners (Garber et al., 2020).

Nearly 60 percent of the parents asked in a COVID-19 study by Hamad (2021) examining Palestinian mothers' impressions of online learning at elementary schools did not believe that their children's learning requirements were being met. For children between the ages of six and ten, this is especially true because kids at this age are frequently active and like playing. According to the same survey, all parents claimed that their kids were reluctant to finish their chores, especially in the morning, because they didn't want to get up as early as they did for face-to-face classes and for other factors that made the lectures boring for the students.

Financial Support Challenge

Financial support was one of the challenges that the online learning process encountered, according to the studies reviewed; especially in some developing countries due to the paucity of funds in the education sector (Adeoye et al., 2020). Many reviews confirmed that the financial situation of the families was a significant challenge to online learning because most of the students couldn't afford internet connectivity or devices for all family members (Dweikat & Zyoud, 2021). Also, as Pramana (2021) emphasized, the price of data packages was not affordable for some students, which was caused by the weakness of the economic situation for most of them. On the contrary, during COVID-19, high socioeconomic status parents were more willing to help their children with online learning than low socioeconomic status parents. (Amanor-Mfoafo et al., 2020).

Curriculum Challenge

Many of the reviewed studies indicated that faculty felt that curricula were not appropriate for online learning and that there was a lack of appropriate teaching methods

and materials. This became a problem due to the change in the learning environment and the fact that teaching materials are limited (Munastiwi, 2021). The reason is that in many regions, teaching still follows traditional methods where teachers explain the lesson directly in the classroom; however, this method is not suitable for online learning (Rachman, 2019). Hutham (2021) points out another challenge in some subjects such as reading, mathematics, and English, which usually require teachers and students to practice in the classroom. Online learning may not be able to address these subjects as accurately as needed, not to mention the human, physical, and technological barriers that may prevent the necessary interaction between teachers and learners. The challenge was even greater in elementary school, where instruction should include movement activities that teachers explain through demonstration (Munastiwi, 2021).

Role of School Principals toward Students and Teachers

This part presented the role of the school principal in dealing with teachers and students in e-learning during the Corona pandemic and the aspects that require support from the principal in terms of the studies reviewed.

Psychological support

Some of the reviewed studies dealt with school principals' support for teachers and students. Meador (2021) talked about the importance of the principal's support for the teacher, providing moral and psychological support through talking to them, giving advice, offering advice, directions, or assistance, and hearing their opinions. Plus, it's important for the school principal to be a good listener to his teachers and students. The school principals should also allow teachers to share best practices and success stories with other teachers. In

addition, school principals must be trust builders, because a principal who actively listens to their teachers and works to create solutions to their problems will gain their trust. (Meador, 2021).

Academic support

The principal must provide the teacher with another type of support, like taking into account the circumstances under which the teacher is going through stressful conditions in both their personal and professional lives; therefore, the principal should never withhold their full support to a teacher going through a difficult personal situation. Any help a principal can offer a teacher going through a personal situation would be greatly appreciated. Asking them how they are doing could be enough in certain cases, but at other times it might be necessary to give them a few days off (Meador, 2021). A principal should always try to be fair and consistent with their decision-making. Also, one of the types of support that the principal must provide is to support the teacher academically. For example, when preparing the class schedule (Grison, 2021). Principals are typically responsible for creating their building's daily schedule, which includes class schedules, teacher planning periods, and duties. If the principal wants to make his teachers happy, it is best to minimize the amount of time they need to be on duty (Tan 2020). Moreover, many studies have shown that providing effective and practical teacher training and relevant professional development support for struggling teachers is essential (Meador, 2020; Yariv and Kass, 2019).

Resources support

The school principal has a wealth of resources to help a teacher with whatever difficulties they might be having, not just books, articles, movies, and websites are a few of these resources , but also giving your struggling teacher a range of tools that offer diverse teaching techniques and technological devices is crucial for their improvement. (Tan, 2020).

Summary

At the beginning of this chapter, the theoretical framework was presented and discussed, including how TPACK is used as a conceptual framework for designing, implementing, analyzing, and evaluating the use of information and communication technologies (ICT) in education. In addition, the theoretical framework was discussed; the implication of Piaget's theory is to adapt instruction to the developmental level of children. Therefore, this chapter includes a review of the literature and previous studies on COVID-19 and "e-learning or online learning as terms, synchronous and asynchronous types of online learning. Then, online learning during the Corona pandemic was presented, as most educational institutions in many countries around the world have moved from face-to-face learning to online learning. Teachers, parents, students, and school principals have different opinions regarding this sudden and quick change. Palestine wasn't an exception to the global outbreak of the coronavirus pandemic in March 2020. Thus, Palestinian primary schools were forced to transfer to online learning. They face many obstacles, but this dynamic change has helped the educational process continue in this emerging situation. Moreover, this chapter included related studies that explored the many benefits of using online learning. All of them have presented ways of saving time, reducing travel from one place to another, being student-centered, and providing the advantage of reviewing multiple times a

day over a period of time in a more accurate and appropriate way for students. Then related studies on the challenges of online learning were introduced. The most significant challenge regarding the implementation during the pandemic is the technical problems, like the internet's weaknesses and interruptions, as well as the lack of the required devices and equipment. All of the studies have introduced the issues of insufficient training for both teachers and students, the absence of technical skills, the lack of parental cooperation, and the role of school principals toward students and teachers in that they should provide academic support, psychological support, and all possible resources.

Chapter Three

Research Methodology

The current study, which followed the qualitative research methodology for its suitability for this study, aimed to investigate the experiences and challenges of Palestinian grade 1–4 teachers, parents, and school principals in implementing online learning during COVID-19. This method allowed the researcher to collect detailed and thorough data on the experiences and challenges of the participants in the study during the face-to-face meetings with them. The researcher relied on Braun & Clarke's (2006) six-phase thematic analysis in the qualitative approach to analyzing the qualitative data collected. The method is described in detail in the results section. This chapter provides a complete description of the method and procedures about how and why this research has been carried out. It describes the methodology of this study, its population and it shows the tools of data collection. Moreover, it presents the procedures of the study, justifies the data-gathering methods, and how the researcher analyzes the collected data. Finally, it discusses the validity and the reliability of the study tools.

Study Population and Participants

The population of the study consisted of all teachers, parents, and school principals of grades 1-4 in government schools in Ramallah district in Palestine. In order to achieve the objectives of the study, the convenience sample method was used to select the study's school sample, which consisted of five governmental schools in Ramallah district; a voluntary sample was selected from each school, which consisted of two teachers, two

parents, and the principal. This yields to,10 teachers, 10 parents, and five principals, with a total of total of 25 participants.

This study is a qualitative study and specifically could be named as a phenomenological study with semi-structured interviews. The researcher conducted semi-structured interviews of 30-45 minutes with each participant. The interviews were conducted face-to-face inside the school premises; the interviews were also audio recorded and manually transcribed; the principals, teachers, and parents were asked 11 different questions in Arabic related to their experiences and major challenges in implementing online learning during the closure of COVID -19.

In order to obtain a thorough and relevant understanding of the research problem from the primary source at a given point in time, study participants help answer all questions related to the research questions and objectives, as suggested by Patton (2014). Patton also stated that when selecting respondents, the researcher should select the right individuals who can answer all questions related to the experiences, challenges, and factors that influenced the use of online learning during the pandemic COVID -19 and be well versed in all related topics.

The following table (3.1) shows the proprieties of the sample :

Table (3.1)

The proprieties of the study sample

Variables		Frequencies	Percentages
Gender	Male	0	0 %
	Female	25	100 %
Age	20s	2	8 %
	30s	7	28 %
	40s	15	60 %
	50s	1	4 %
	Tawjihi	1	4 %
Qualifications	Dip	2	8 %
	B.A	19	76 %
	M.A	2	8 %
	PhD	1	4 %
Technology knowledge	Few	5	20 %
	Medium	17	68 %
	Developed	3	12 %
Teachers and school leaders			
Experiences	1-5	4	27%
	6-10	9	60%
	11 and above	2	13%
Parents			
Profession	Employee	7	70 %
	Housewife	3	30 %
	Under of 2	1	10 %
No. of Children's	3-4	7	70 %
	5 and above	2	20 %

All samples were female. They held various academic degrees such as tawjihi, diplomas, bachelor's, master's, and doctoral degrees. Most of the respondents were around 40 years old and had low to high technical knowledge, but most of them had medium technical knowledge. The majority of teachers in the sample had a bachelor's degree, and a few had graduate degrees.

Context of the study

This study was conducted in five grade (1-4) public schools in the Ramallah School District in Palestine, namely Ein Mousbah elementary mixed school, Saffa primary mixed school, Bayt Ur at-Tahta basic elementary school, Bayt Sira elementary boy's school, and Beit Ur al-Fauq mixed school. These schools implemented the online learning system to deliver online learning courses for their students during the closing of COVID-19. Online learning was implemented in these schools through a platform called Microsoft Teams, which was adopted as a basic program in online learning during the closure period in Palestine. The interview questions were designed to collect data from teachers, school principals, and parents who used the online learning system during that period. Therefore, these schools could help us achieve the research objective.

Instruments of Study

The data for this study was gathered, by conducting a semi-structured interview. This is due to the fact that a semi-structured interview is a useful tool for gathering data for a qualitative research study. According to Creswell (2013), it helps researchers thoroughly understand the participants' opinions and perspectives on the issue being investigated.

In this study, the semi-structured interview consisted of eleven questions derived from the main research questions and followed the same pattern as the interviews with the selected participants. Also, each of the teachers, parents, and school principals had different suitable questions. Additionally, the semi-structured interview involved two-way dialogue, with more questions being exchanged between the interviewer and the interviewees during the interview. Thus, this method allowed the researchers more conversational interaction, which permitted a greater amount of data to be gathered. The interview questions consisted of several aspects of the experience of online learning during the COVID-19 pandemic, the main challenges facing them through using an online learning system during the COVID-19 pandemic, and the main factors that affect the successful usage of an online learning system during the COVID-19 pandemic.

Instrument's Trustworthiness and credibility

To ensure the trustworthiness and credibility of the study instrument, the researcher shared the interview questions with experts (faculty members at the Faculty of Education who have rich experience in education, research, and technology) to ensure and verify the validity; they provided some comments that were considered after the three experts determined that the questions were valid and appropriate to reveal the challenges and experiences of teachers, parents, and school principals, as well as the role of principals in implementing online learning during COVID -19.

To ensure the reliability of the data collected through the interviews, the researcher returned the recorded notes to the interviewees and asked them if the notes reflected their precise words and meanings. After their agreement, the researcher kept them and kept records of the agreed paraphrased statements.

To ensure the reliability of the results obtained through the interviews, the researcher passed the data to another researcher who analyzed it thematically to ensure consistent results. We compared the codes and themes from the interviews and found high reliability. In addition, the results collected were discussed again with the participants to confirm the validity of the data collected with the interview instrument (respondent validation).

Data Analysis

The qualitative data obtained during the interview was analyzed using the thematic analysis approach. The main purpose of this method is to capture something important from the collected data related to the research question. In order to conduct the thematic analysis in this study, five steps were established following Braun and Clarke (2006), namely: familiarization with the data, creation of initial codes, search for themes, definition and naming of themes, and creation of the final report. The concept of theme represents something important that was extracted from the data in relation to the research question. In the process of thematic analysis, the researcher subjectively categorized the data obtained from the respondents into three elements.

The coding process began with descriptive coding followed by phrases, words, and sentences from the data transcript that were tagged with relevant words related to the experiences and challenges of grade 1-4 teachers and parents in implementing online learning in COVID -19 and the role of principals in facilitating the online learning process. Several subthemes were then classified for each specific theme, depending on the research topic. In the selective coding analysis, the researcher classified the interview data into main global classifications, namely specific themes, namely experiences and challenges of using online learning during the pandemic COVID -19 and the role of school leaders in facilitating the implementation of online learning, as well as subthemes that emerged as new themes

and relationships among the specific themes. The interview was recorded with the consent of the participants, preserving their anonymity. The interview was recorded by the researcher using a recording application on her phone. After the interview was completed,

Chapter Four

Results

This study aimed to explore the online learning experiences and challenges that Palestinian teachers, parents, and school principals faced in grade 1-4 schools in Ramallah school district during the school closure of the COVID-19 pandemic era.

The study also examined the role that school principals had in online learning throughout the pandemic and the support that they supplied teachers in terms of education, technology, and emotional support.

The researcher adopted the qualitative research method as a method for the study by conducting semi-structured interviews with 25 teachers, school principals, and parents from five public schools in the Ramallah district. Interviews have been conducted with ten teachers, ten parents, and five school principals. Semi-structured interview questions related to their experiences and challenges in online learning during the COVID-19 pandemic and the kinds of support school principals provide to teachers. The researcher used thematic analysis, which involves the process of open codes, axial codes, selective codes, and at the end, patterns were identified.

In this chapter, the researcher will show the results of data analysis to answer the study questions. The following topic answered question number one :

Online learning Experiences

The online learning experiences during COVID-19 were generally described as negative by the majority of interviewed participants, since (21 out of 25) participants, or 84 percent, described their experience with words like bad, very difficult, and unsuccessful.

While (5 out of 25) of them described their experience as negative, but it also had some advantages.

Teachers Online learning Experiences

While studying the interview data, the interviewer closely observed the feelings and reactions of the participants. After coding and analyzing the data, the interviewer found that (one out of ten) interviewed grade 1-4 teachers had a completely positive experience and had positive feelings toward the implementation of the online teaching process during the COVID-19 pandemic, while (three out of ten) believed that online learning had both advantages and, at the same time, disadvantages. For example, one of the advantages of online learning was that it aided in maintaining connections between students and parents, the school, and teachers. As teacher Maya said, "At least, online learning enabled continued communication between students and teachers". Also, online learning saved money on transportation and effort, as the teacher Nadia said: "Online learning reduces the suffering of transportation and its cost, the suffering of the teacher moving from home to school, and the suffering of preparing yourself in the morning to get ready for school."

Reduced educational loss rates for students who attend classes was the additional advantage, as teacher Manal stated, "Students who committed to online learning had much less educational loss than students who did not attend online learning classes.". Another advantage was that online learning was preferable to doing nothing at all. The best alternative for education in an emergency is this, because it is preferable to a long time of complete absence from school and because it provides a realistic alternative to the quarantine issue. "We were at least still able to monitor the students." Manal remarked.

While the majority of the interviewed teachers (nine out of ten) felt negatively about using the online learning during the COVID-19 crisis, Most of them (six out of ten) indicated that the experience was absolutely negative. As teacher Noor said, "The online learning phase was a very difficult time for us as teachers and for students, meaning it was a negative, unsuccessful experience and we faced many challenges."

Regarding online learning as an auxiliary system, all the interviewed teachers' opinions were that online learning will never be an alternative to face-to-face learning. Teacher Nada said, "There is no alternative to the face-to-face education system , especially for the stage 1-4 ." , but some of the interviewed teachers reported that online learning can be used as an assistant system, enrichment, or stabilizer of the information that is given face-to-face. As Zahra's teacher said, "It can be an assistant to activate students as an assignment, a worksheet, a review of the lesson, or a link to a game about the multiplication table, as an example."

Parents Online learning Experiences

All the interviewed parents (ten out of ten) have negative feeling towards online learning implementation experience during COVID-19 . But there were (two out of ten) showed that despite our negative experience towards online learning, it may have some positive aspects, such as keeping connections with school and also with fellow students . As Iman said, " Online learning had the advantage of allowing students to communicate with their peers as well as the school, teacher, and education, even if only in a limited way."

As a result, online learning also helped some shy students to express their opinions and get rid of their shyness and dependence on themselves, as a few parents said. One of them was Su'ad, who said,

As a result of the distance and the fact that no one can see him, I have observed that e-learning has aided students who struggle with confidence and shyness in traditional classroom settings to engage, speak out, and express their opinions.

Additionally, online learning assisted students in using computers and smart devices for productive purposes other than entertainment, assisting them in positive self-learning, exploration, and research. As one of the mothers, Dalal said, "After using the phone and computer just for play and fun, I noticed my son began to develop self-reliance and started exploring the world of technology." Another advantage was that online learning was a unique alternative to education given the quarantine and closure that were imposed at the time and helped to immunize students from disease. Mrs. Samaher supported this point by saying, "The positive aspect of online learning is that it is the only solution to reduce the interruption of education."

Online learning, in the opinion of school principals, also conserves time and money. They intend to save money by limiting the principal's and teachers' absence from their homes to seven hours per day at school. It also saved money by reducing transportation costs.

Parents were questioned about their support for using online learning as an alternative educational system versus just an auxiliary educational system to get further insight into the school principal's viewpoint. All of the responses were strongly against using online

learning as an alternative system, and 90 percent of the parents said they only supported using it as an assistant. The remaining 10 percent refused to use online learning in either of these ways. As Somaia said, "How can a first-grader be taught how to handle a pen and write letters electronically? I've never supported the use of online learning as an alternative system." In another way, in order to understand the parents' experience of online learning, they asked if their responsibilities towards their children in grades 1-4 differed in online learning from those in face-to-face education, and they all affirmed (ten out of ten) that responsibilities differed and even doubled in terms of time, effort, and expenses that the mother needed to take care of them as well as in terms of follow-up and attention, especially in this foundational educational stage. As Dalal said, " My responsibilities increased dramatically, and I became a mother and a teacher at the same time." This was multiplied by the number of educated children at home, especially at grades 1-4 . "

To expand on this subject, parents were asked about their satisfaction with the results of their son's learning in online learning. The result was that all mothers were never satisfied. To expand on this topic, we asked the mothers about the extent of their satisfaction with the results of their son's learning in online learning. The result was that all mothers never felt satisfied; in the words of the mother, Samaher, "As a mother, I made huge efforts in educating my children electronically as well as their teachers, but the results were never satisfactory." In short, the result is never as much as the effort.

School Principals Online Learning Experiences

The analyzed data showed that (two out of five) of the school principals interviewed described their experience with online learning as negative and bad. However, (three of the

five) principals surveyed were positive about their experiences with online learning. Otherwise, principals explained their opinions about the positive feelings surrounding their experience with online learning for many reasons, such as the fact that online learning has helped the school and teachers maintain contact with students and parents. In addition, online learning has helped reduce educational losses for students caused by school closures during the COVID-19 pandemic, especially for students who have committed to participating in electronic classes. As Samia said, "Online learning at least helped reduce the percentage of educational loss for students." Moreover, the idea of online learning was the best solution to reduce the damage of complete educational absenteeism during the long period of the COVID-19 pandemic. As Principal Samia said, "Online learning was the best solution to the hardship we faced during the Corona pandemic."

As for the opinion of school principals if they supported the use of the online learning system as an alternative to the face-to-face education system, the teachers' opinions were all of them rejecting the use of online learning as a permanently approved educational system, and they all stressed that the use of online learning is only in emergency situations and is used as an auxiliary system only and not as an alternative ever.

Online learning Challenges

I conducted interviews and asked several questions to teachers, parents, and principals to find out about the challenges of online learning that each of them faced while teaching students at the lower basic stage in order to answer the second study question about the challenges of online learning, and the results were as follows:

Challenges Faced by Teachers in Online Learning

Data were analysed using a thematic analysis approach. The results were divided into three phases of the online learning process: Preparation, Implementation, and Outcomes. Preparation stage Data analysis revealed similarities and differences between the methods of the lesson preparation stage in online learning and the lesson preparation stage in face-to-face learning, for example:

Through the analysis of the teachers' interview data, it was discovered that there are some similarities between face-to-face instruction and online learning. For instance, both require an introduction, presentation, and conclusion, as well as the establishment of goals and methods or strategies for teaching the lesson.

The teachers that were questioned remarked the following differences between face-to-face and online learning: which are also the challenges encountered at this stage , which were as follows:

The Time: According to the analysis of the interview data, all teachers noticed a significant difference in the amount of time required to prepare an electronic lesson versus a face-to-face session. This was because creating an electronic lesson requires extensive work that can take up to eight hours. According to the teacher, Assel, "Every hour needed to plan for the face-to-face session needs me to plan in online learning for between three and eight hours."

The Effort : The results of the interview analysis also indicated that the effort needed to prepare the electronic lesson was much greater than the effort needed to prepare the face-to-face session because online learning is a new system that teachers have never used or dealt with, and all teachers are beginners in understanding and applying the online learning

system. They are not sufficiently trained, so the teacher must make a great effort to find the appropriate method for each lesson to explain it electronically. As teacher Zahra said:

It takes me a lot of time and effort to prepare electronically. I used certain mathematical programs, such as the Open-Board program, while creating presentations to teach the lessons, notably for the lesson on measurement. I used the program's tools, like the protractor, and I dragged the tool to again take measurements.

The Experience: The experience that teachers have in preparing for face-to-face regular classes extends to tens of years in some cases, so they have excellent experience, while the experience that teachers had in online learning was non-existent, and all teachers were new learners in online learning. Experience here, according to the teachers, means "having experience with computer applications for online learning or specific educational materials like math or English, and experience in coming up with strategies and methods for presenting the electronic lesson." As teacher Ruba put it,

Teaching and Computer Skills: Online learning required a high level of skills that teachers were not familiar with, such as the ability to generate an electronic search for relevant information to prepare a lesson that is suitable for electronic presentation or the skills to cut and edit videos, for example. Teacher Nada reported, "The ability to use online learning platforms, conduct electronic research, and use some specialized software all requires special skills."

Teaching Strategies : Online learning strategies differ from face-to-face teaching strategies, so the teacher has to find the appropriate strategy to plan the lesson to deliver the information to the student remotely , Online learning strategies differ from face-to-face teaching strategies, so the teacher has to find the appropriate strategy to plan the lesson to deliver the information to the student remotely. Online learning cannot use these strategies, but online learning focuses on audio-visual material . According to teacher Amal, "Appropriate teaching strategies differ from face-to-face teaching strategies that rely on the kinesthetic sense and tangibles, especially for the grades 1-4 stage in electronic education."

Responsibility : In electronic education, teachers feel that their responsibilities have increased. In face-to-face education, the teacher explains in front of the class. As for electronic education, the teachers felt that they were not only in front of their students , but also in front of all the parents. They entered all homes with their voice and electronic lessons, and this increased their sense of responsibility so that the teachers could prove their personality and abilities, communicate information better, and be more convincing and more self-confident.

Devices and the Internet: One of the fundamental needs for preparing an electronic class is having access to a computer in order to download the special applications or programs needed for authoring slides, which cannot be done on a mobile device. Some teachers have suffered from inadequate access to the high-speed internet and computers. As teacher Maha said

One of the challenges I faced was that I didn't have a computer, so I had to prepare, present, and instruct the class using a mobile phone. This was quite challenging for

me because the program on the phone didn't have all the features of the program on the computer.

The Implementation Stage

The second stage of the online learning process, which was modified into six themes, which the teachers faced during implementing the e-lessons, as shown in the following:

Technical problems, which were noted, related to all difficulties faced with the internet, computer hardware or software, and technical issues arising from the usage of tools or software. The issue of poor Internet quality or lack of availability, particularly during peak times when multiple users in the same home connect to the Internet at the same time, is the most significant challenge that all the teachers who were interviewed (ten out of ten) indicated they faced during the implementation phase of online learning. This leads to poor screen and sound quality. Teacher Rabab confirmed this by saying:

We were suffering from internet outages during the implementation of the lesson, so we forced to re-explain the lesson to the students, and we were also suffering from technical problems such as sharing the teacher's screen in front of the students, or we were unable to solve the students' technical problems in dealing with the program during the lesson, in addition to problems in dealing with the Thames program and technology in general, which caused the loss of class time.

According to (five out of ten) teachers, the second challenge within the theme of technical problems is devices and equipment. This problem includes the lack of computers or the

presence of a difficult-to-fix computer malfunction, as well as the need sometimes for specialized equipment to present the lesson, especially for mathematics teachers.

The third difficulty listed under technical challenges, which was confirmed by four out of ten teachers, relates to issues with specific software malfunctions or online learning platform usage, as well as some tools like sound and screen, and some difficulties with the Microsoft Teams platform, such as issues with navigating links to access online courses.

Readiness and Planning, included the lack of readiness of teachers and students for the online learning system, in addition to the lack of readiness of the teacher's home in terms of space and number of individuals and learners to teach students through electronic classes.

Teacher Abrar emphasized:

My house was not ready and not suitable and ready for online learning and to deliver the school to my home, especially since I had a baby, and it was difficult for me to balance between the time of his care and the time of preparing and implementing the electronic class. I felt a lot of mental and physical pressure.

As for planning, the teachers suffered from the lack of prior planning to deal with the problem of students dropping out of education and suddenly resorting to online learning without sufficient preparation and the accompanying psychological and physical pressures for teachers. In addition, the problem of class time was insufficient to achieve all the objectives of the electronic lesson, as were the problems related to regulating the e-class, student regulation, and the chaos accompanying the many interventions by parents and

students. Another problem is also related to the nature of the educational curricula, which are not suitable for electronic education, as indicated by (three out of ten) teachers.

Teacher Readiness Challenges:

The biggest challenge related to the teachers was the lack of experience and lack of adequate training for teachers on the use of online learning platforms and programs and the lack of experience in implementing electronic classes. As indicated by most of the teachers who were interviewed (seven out of ten), they faced a problem reconciling their responsibilities towards children as mothers and towards students as teachers.

In order to understand more about the challenges related to teachers, they were asked about the training they received during the Corona closure period. All the teachers interviewed (ten out of ten) answered that they did not have any experience launching online learning and that they were not trained before the entry of the pandemic, but they were trained in the education system. During the closure time of Corona 2020, the training was for three days only, and it was online training theoretically, not practically. Therefore, 80 percent of teachers indicated that the percentage of benefits from the training provided by the Ministry of Education was very small and that they did not benefit from the training at all. While a few teachers (two out of ten) claimed that utilization was around 60 percent. As teacher Amal said,

MoE has done intensive training for teachers in online learning on the Microsoft Teams platform and expected us to learn hard skills in a very short time, despite the fact that I am already very weak in the principles of technology. Although I received no benefits from the training course, I hired a private tutor who is an expert and paid

him 400 shekels from my personal account for my training. After that, I applied by myself and learned how to use the Teams platform and online learning system.

Students' Related Challenges

The lack of student motivation for online learning, which impacted the percentage of students who were committed to attending e-classes and also influenced students' discipline in the e-class, was one of the challenges under this item, according to a few teachers (three out of ten). As the teacher, Nihal, said,

The number of students attending the electronic class was a problem, as the idea of attending an electronic class for students was a new idea and they could not deal with the new education system. In addition to the difficulty of controlling students, as the students did not know when or how to speak or answer,

Another challenge faced by teachers and related to students was the inability of online learning to deal with individual differences between students. Teachers were asked which student groups suffered the most, and their responses were summarized as follows: students with academic weaknesses; low-income parents who cannot afford adequate devices and Internet access; and large families with a large number of learners. Also, the students who did not attend classes for any reason, students whose parents are elderly and have little experience in technology, and students with special needs. As teacher Nada put it:

Traditional education did not deal with individual differences between students in a general way, so what about online learning? Certainly not, especially for students with special needs, academic delays, and low-income families. I consider it a great

achievement if hardworking students can understand the lesson, especially in a difficult subject such as mathematics.

Parents' Readiness : According to the challenges related to parents, which were mentioned by three out of ten teachers, they were the lack of experience of parents in online learning; therefore, they cannot help their children in online learning, as well as the negative interventions of parents during the implementation of the interruption, commenting, and answering the teacher's questions to his students. This led to chaos and delays in the implementation of the online learning classes. Teacher Nada says, "Parents' interventions are incorrect, harm the usefulness of the student and his learning, and affect the course of the lesson negatively."

Online Learning Outcomes Stage

In the context of the same topic of teachers' experiences and challenges with online learning in grades 1-4 in Palestinian public schools, the researcher has studied online learning in terms of educational outcomes and evaluating students from several aspects, such as: how it differs from the face-to-face evaluation of students, how teachers evaluate students online, and their satisfaction with electronic assessment methods.

Two themes were investigated in the online learning outcomes stage. These were: teachers' experience, which refers to the teacher's opinion about the online learning evaluation process and outcomes in general; The other theme that resulted refers to the method, which means how the online learning outcomes stage differs from face-to-face learning evaluation and how the teachers evaluate the students in online learning.

The analyzed data resulted that all the teachers who were interviewed stating that the methods used to evaluate students in face-to-face instruction and online learning were different. According to the analysis of teachers' responses about their level of satisfaction with the method of student learning assessments, all of the participating teachers reported that the method of evaluating students in electronic education was neither fair nor reliable, and they were not satisfied with this method. There is no alternative, fair method. As teacher Nada said,

It is known that in the grade 1-4 stage, it was forbidden to evaluate students by paper and pencil exams, but there were many ways in which the teachers could evaluate students in face-to-face education. But it was difficult to evaluate students online. It was not realistic or fair, and I am not satisfied with it. As a teacher, I am not sure if the student has answered my question by himself or solved the worksheet alone. While in the class, I observe the students and can evaluate their performance. We, as teachers, are unaware of any other appropriate electronic evaluation methods.

According to the data analysis, some of the interviewed teachers reported that online learning did not achieve the educational objectives. A few of the interviewed teachers said that education in online learning achieved their objectives only for students who committed to attending the classes. Although only two out of ten teachers said education had achieved its goals by a percentage of half.

Most of the teachers who participated in the interviews said that while there were a few methods of evaluating the students in the online learning process options available, the Ministry of Education does not mandate any particular approach for assessing student

learning in online courses. Instead, it left this up to the teacher. So the teachers used evaluation methods like:

The most important method of assessment used by the majority of teachers, and they felt that it was realistic, was by asking sudden questions to the students during the lesson, the aim of which was to be sure that the students understood the lesson and to test their attention span. Students are assigned to educational tasks as a specific assignment with a time limit and asked to send them to the teacher via the online learning platform Teams. This includes assigning students to solve worksheets for empowerment, not evaluation; sending interactive links for students to answer and sending them at home or in class; or through electronic games sent to students to play and the result reaches the teacher. A few of the teachers evaluated the students on their commitment to attend the electronic class and their commitment to discipline during the class. As Teacher Abeer said

I am a first-grade Arabic language teacher. I used to give students worksheets, but I did not evaluate them depending on it , because the parents used to solve this worksheets instead of their children. But I thought of a new way for assessment to help students deal with the kinesthetic aspect of learning to memorize the letters . In the letter R lesson, I asked the students to choose a different type of Palestinian rose. Then he makes an anthropomorphic in the shape of that rose, wears it on his body, sings a song, makes a video of that, and sends it to the teacher . In fact, all the students created ideas that impressed me, and the lesson was consolidated in their memories .

Challenges Faced by Parents in Online Learning

The data was analyzed by implementing a thematic analysis approach, which resulted in five themes of challenges faced by the parents, which were technical, academic, psychological, planning and management, and teacher-related problems.

Technical Problems

The analyzed data showed that (six out of ten) parents indicated that the most important challenges related to technical problems such as a lack of computers and devices needed for online learning. As Neda said, "The most difficult challenge was that we did not have enough computers in the house for my four children and for me as a teacher." Another challenge was that the internet, network, and infrastructure were of poor quality. As Samia said,

My problem was that my financial situation was bad. It made me unable to buy a computer or a phone for my son and also unable to provide the Internet until my family gave me a computer and the neighbors helped me with the Internet, but it was bad.

In addition to that, there was some parents' inability to deal with technology, such as computers, or the Teams platform, or smartphones in learning. As Samira said,

I hate technology and hate dealing with it because I do not understand this technology. I am in my late fifties and it is difficult to learn anything new, and my son is nine years old and I cannot help him.

An important challenge faced by parents was the inability of their children to use a computer or a smartphone and solve their technical problems, such as dealing with the microphone, screen, and links for online learning, as the results of the analyzed data showed that more than half of the parents thought that their children's ability to use modern technology was weak and that they were unable to deal with them. Especially before the end of the COVID-19 pandemic, that was because parents resisted exposing their kids to technology for long periods of time. out of concern that it would harm them due to their addiction to video games. In this context, Dalal indicated, saying: "My children's use of technology before the imposition of electronic education was weak and limited to games and entertainment by watching videos, and they were not accustomed to using it in education."

Academic Problems

Analyzed data showed that four out of ten interviewed mothers indicated that the most important challenges related to academic problems they faced during implementing online learning were as follows: Dissatisfaction with the results of online learning: as the mother Suhad said, "I believed that the outcomes of electronic learning were fake and unreal."

In addition to the unfair methods of evaluating students in online learning or even the absence of an approved evaluation by the Ministry of Education, the educational curriculum and its unsuitability for online learning, especially in light of the parents' inexperience in the way they are taught, and the low attendance in the online course, had negative effects on the present students and the drop in interest in online learning by students . Amena informed us,

" Students' attendance was very low, occasionally less than 20 percent of the total number of students in the class, as a result of the teacher's poor ability to deliver electronic courses."

Another important challenge was the specificity of grades 1-4 of education, in which the child is built and established academically, psychologically, physically, and mentally for all stages of his life. This is in addition to the fact that the ability of the learner at this stage to pursue self-learning is very difficult as the child needs the help of parents and in addition to the fact that online learning increases the need for parents to follow up on the child. This was the opinion of the majority of fathers when we asked them about the ability of their children to continue their learning on their own. The majority (nine out of ten) answered that they never had the ability to continue their learning on their own, especially in electronic education. As Amena said,

I encouraged and even forced my son to sit down to attend the electronic class, and I opened the computer, the program, and the link, and sat with him throughout the class, even helping him with the homework after the class.

While a few mothers (one out of ten) answered that their son can rely on itself and requires only a little regular follow-up. The teacher, Naqaa, said,

My daughter, after being trained in online learning and because she was established to some extent in languages in the first and second grades before the Corona, so she was in the third grade during the pandemic, and most importantly, because she is very smart, she was able to rely on herself in online learning.

Psychological Problems

A few of the interviewed mothers (three out of ten) indicated that the most important challenges related to psychological problems were the lack of students' motivation towards online learning and a lack of conviction among students about the feasibility and usefulness of online learning. As Samar said, " the feelings of students that they do not get enough information and benefits from online learning, in addition to the low attendance rate, made students feel that online learning was only nominal and useless." And due to that , they felt distracted and lost among students and parents due to online learning, as Samar said.

The most difficult feeling I faced was feeling lost and scattered. I felt lost between my lack of experience as a mother in the "Teams" program and my fear and concern for my son's future and academic achievement, and between my fear of the spreading disease.

The enormous psychological and physical pressure that parents face when it comes to online learning . As Ahlam explained " Lack of time, a lot of responsibilities, the conflict between my children's class programs, the difficulty of the teams program, and the online learning system in general were all causing me tension, nervousness, exhaustion, and psychological pressure."

The parents' lack of security and lack of privacy and revealing the secrets of the houses due to the opening of Microsoft Teams camera or microphone in the houses suddenly, intentionally or unintentionally, The mother, Dalal, explained, "Often, when the student opened the microphone or the screen, we would hear some unacceptable words or hear the issues and secrets of some families. In addition to that, the parents believed that their

children's frequent usage of technology had turned it into a distraction and increased their hold on it. They spend a lot of time on it for nothing. Somaia said, "My son's addiction to smart phones has increased. He was violating the electronic class, and instead of following the class, he played games that he became addicted to. "

Also parents' feelings of concern about their children's academic and social futures and character building. As one of the mothers that was interviewed remarked while crying,

The Corona time interruption made me believe that my son's future was lost. I had dreams of my only kid growing up to be a wonderful person, but the Corona era had a considerable negative impact on his academic and social development, and it is impossible to make up for that time.

Parents' feelings of doubling their responsibility in following up on their children and the difficulty of reconciling the responsibilities of the mother and the teacher. Iman showed that: "As a mother, I have conflicting responsibilities: I must monitor my four children's electronic lessons, which coincide; and as a teacher, I must deliver the lessons to my students."

Poor Planning

Analyzed data showed that two out of ten interviewed mothers indicated that the most important challenges related to planning and direction were the great chaos that was occurring during the electronic session and the interference of the voices of students, parents, and teachers. As the mother Sohad said, "Due to the numerous interruptions made

by them, I occasionally get the impression that online learning is only for mothers, causing chaos and annoyance in the classroom."

The sudden decisions from the Ministry of Education regarding the imposition of the online learning system during the period of school closure during the Corona pandemic, in light of the lack of readiness to implement the new system, As Sohad said, "The lack of prior planning by the Ministry of Education to solve the problem of interruption of education during the closure period and confusion in decisions was the most important reason for the failure of the online learning experiment.". Additionally, the lack of a prepared, clear e-class schedule for the students requires the school to notify them a few days in advance for each class and include the class times, which some students did not receive. Amena told us,

My issue was that there was no clear schedule for e-classes that had been publicized in advance by the school." Instead of that, the teacher sent the link to the class on the day of the class according to his mood through social media groups, and I had to go through the process of looking for it.

Also, the lack of communication between the school and teachers and students was another challenge. In addition to that, the conflict of the class program for brothers in the same house, in light of a significant shortage in the number of devices, also reflects the weakness of the financial capabilities of many Palestinian families, which negatively affects the ability of parents to provide computers, or smartphones, and high-quality internet.

Teachers Readiness Problems

Two out of ten interviewed mothers indicated that an important challenge related to the teacher's lack of online learning experience and training, which led to the online class getting uninteresting and the students struggling to understand the material. The explanation of the lesson relies on memorization due to the teacher's inexperience in selecting an effective electronic lesson presentation strategy. As Amena said,

I was suffering greatly with my son in a basic subject, which is the Arabic language for the third grade. The teacher has no prior experience with the Teams platform. His daughter or wife was the one who made the links. During the class, the teacher was content with his students' e-lesson by talking without doing anything on the screen, so the students became bored and did not understand anything.

Challenges Faced by Principals in Online Learning

The following outcomes were obtained from the analysis of data using a theme analysis methodology. Six themes emerged from the data analysis, and they are as follows: Technical, psychological , academic, planning and readiness, parent-related problems , teachers' related problems. The following is an explanation .

Technical problems

All of the interviewed school principals (five out of five) indicated that the most important challenges related to technical problems were the lack of sufficient computers for teachers or parents, or the inability of the school to cover the needs of teachers . As Elham said,

Many teachers did not have enough computers to use at home as a basic need for online learning. Teachers who did not have access to a computer were forced to visit a colleague's or a relative's home. They could use a computer to deliver their online lessons.

Poor quality and repeated internet breakdowns ,as Raeda said. "The weakness of the Internet in general for teachers and students has hampered the progress of online learning, and the problem grows as the number of learners at home grows. "

Psychological problems

The results indicated that the majority of school principals who were interviewed (four out of five) suffer from the following psychological challenges, such as parents' lack of conviction about the importance of using the online learning system. As school principal Alia said, " The greatest difficulty I faced was the general absence of interest in the new educational system and the dissatisfaction of parents with using the online learning system as an alternative to face-to-face education." Another challenge was the lack of motivation for students to attend electronic classes. Raeda said, " Students' motivation towards online learning was low." The school principal is under a lot of work pressure to complete the important responsibilities that need to be followed up on with teachers, parents, students, and the Ministry of Education. " Also, balancing the responsibilities of a school principal as both an employee and a mother to her children can be difficult. As Suhair clarified,

The greatest challenge I faced as a school principal was the intense work pressure that accompanied the COVID-19 closure period. As a principal, I was responsible for keeping track of the teachers and the progress of their electronic classes. I had to

follow up with the parents, solve their problems, and follow up on the students, the percentage of their attendance, and the reasons for their absence, and assist in their resolution. I'm also carrying on with my motherly duties, especially since I have two sons in grades 1-4 who require my attention.

Parent Related Challenges

The results indicated that (three out of five) of the school principals who were interviewed experienced the following parent-related challenges such as the parents' insufficient online learning follow-up with their children, as the school principal, Elham, said, "I noticed the students' lack of motivation to join the virtual classes program, and one of the reasons for this is the insufficient follow-up from the parents."

Parents' inexperience or limited skills in using the Microsoft Teams application and the online learning system in general. As Suhair said, "Teachers were trained to some extent in online learning as a new education system, but the parents were not trained, and therefore they lacked any experience in it." Also, the influence of parents of committed students on those who are not committed, and the inaction and lack of interest that results.

Poor Planning

Data analysis reveals that the following difficulties with preparation and planning are mentioned by (three out of five) of the school principals whom were contacted:

Conflicting schedules for more than one student in the same house for different educational stages and at different schools. As Alia said," Many students in the same house in several

schools and the conflicting schedules of electronic class programs in light of the problem of the lack of computers for learners"

Lack of clarity in the Ministry of Education's policies, lack of preparation for the online learning experience, and concern that the Ministry of Education won't approve the school principal's decisions regarding his school and his teachers are all contributing factors.

Here are some explanations for some of those poor choices:

Electronic evaluation for the online learning time not being accredited, The Ministry of Education's decision forced teachers to make up electronic classes, as well as the Ministry of Education's focus and interest in certain educational stages (such as the second stage) and its neglect of other educational stages (such as grades 1-4), otherwise the lack of support and interest from the Ministry of Education in teachers who were committed to online learning or who were creative in it, in addition to the absence of an official authority approved to issue decisions. Also, the lack of a clear plan for education for online learning.

Academic problems

As a result of the data analysis, (two out of five) of the school principals surveyed identified the following academic challenges: the number of parents who do not participate in a significant portion of electronic lessons and those who substitute private courses at their own expense outside of the online learning environment. As Suhair said, "I had a problem with about 30 students who refused to attend electronic classes and instead took private lessons due to their parents' laziness and unwillingness to bear the burden and responsibility of educating their children."

The outcomes of online learning were unsatisfactory; there was a high rate of educational loss, and there was no suitable solution. As the school principal Raeda said, " The percentage of educational losses due to dropping out of face-to-face education was large and was not resolved well. "

Teacher-Readiness Challenges

As a result of the data analysis, two out of five school principals interviewed experienced the following teacher-related challenges:

The lack of sufficient teacher training and a lack of sufficient experience for teachers in online learning "The teachers were unfamiliar with online learning apps as a new application that was approved during the Corona pandemic, as well as a lack of necessary professional expertise or training to activate electronic classes." Elham said. On the same subject, about whether the teachers had received sufficient training on online learning before it was imposed as an education system, four out of five school principals said that teacher training was not sufficient to enable them to learn online; one out of ten answered that the training was ultimately sufficient because they were trained in more than one way, as training by the Ministry of Education was the beginning, and the teachers completed self-training, research, and learning by doing. Inadequate teacher training in online learning, we conclude, was a significant challenge. Some teachers were infected with the coronavirus and were interrupted from online learning due to their poor health conditions. As Elham explained, "I faced a problem, which was that several teachers were infected with the Coronavirus, and their communication with students and electronic classes was interrupted." Another school principal suffered from teachers' lack of commitment to giving electronic lessons because they believed that it was not useful and that everything that would be

explained in online learning would be re-explained face-to-face. As Elham said, "Because they felt that online learning offered no advantages and because of their inability to apply it, some teachers were reluctant to start providing electronic lessons." Otherwise, weak capabilities, a lack of skills, and difficulty comprehending and mastering older teachers' online learning despite training and practice were explained by Suhair: "Elderly teachers had great difficulty understanding and implementing the Teams online learning platform and were, therefore, unable to implement e-classes."

School Principals Role in Online Learning

Data analyses revealed three kinds of support mainly: psychological, academic and technical.

Psychological Support

As a result of the data analysis, (four out of five) of the principals indicated that they used the following methods in order to provide psychological support to students:

Constantly encouraging students to attend and follow up online classes and complete educational tasks and assignments correctly. Regarding teachers' psychological support, motivating them to continue and encouraging them to teach creatively and using the best suitable teaching methods. Also, inform parents, students, and teachers about the significance of the new online learning system and the necessity of implementing it.

Creating dedicated communities on social media for parents and students to engage in conversation and support one another psychologically. In order to address their issues and provide them with psychological support, school administrators also do the same for

teachers and express their gratitude to the persevering and committed parents and students who take part in online learning. Thanks are given through an intervention during an online class, by outstanding and dedicated students, or by posting thanks on the school's Facebook page in the names of the dedicated students and highlighting their accomplishments. A financial honor for students by awarding prizes upon their return to schools following the end of the online learning period .

Do the same for the teachers, expressing gratitude and praise while highlighting their achievements and presenting them with certificates of appreciation. Along with disseminating the concepts of innovative teachers.

Academic Support

The data analysis revealed that (three out of five) percent of the principals employed the following techniques to support students' academic performance: Follow up the electronic classes on a daily basis by entering the class for five minutes and welcoming the students and teachers, thanking them for their efforts, encouraging them to follow up, stressing the importance of commitment to attend the electronic classes, and praising the teacher in front of the students for his efforts. Entering randomly into some electronic classes, discussing with the students some related issues to teaching and learning, listening to them, assisting students in solving any upcoming issues, or giving them some advice to overcome these problems One school principal, Raeda, said,

The most important duty towards the students is to follow up and pay attention. I memorize the names of almost all the students, and I enter daily

classes, follow up on the attendance of the students, and call the absent student by phone to check on him, know the reason for his absence, and solve his problem.

Solving the problems of students, parents, and teachers in all possible ways, also forming special groups for students or parents in each class to communicate with them and assist them in overcoming and solving the problems they faced. a similar thing with teachers. The school principals Suhair said,

I assisted the parents in downloading the Teams program, creating accounts, and resolving all of the issues they encountered, and I resolved the issues of over 120 students, either personally, through the school secretary, or through the technology teacher, when the parents brought the laptop to the school and we resolved the issue.

Considering teachers' circumstances and personal circumstances when developing the schedule of daily online learning classes and assigning their classes in proportion to their time and circumstances The school principals' use of courtship style in asking teachers, praising them in all cases for their efforts, even if their performance was not perfect.

Technical Support

As a result of data analysis, (four out of five) of the principals indicated that they used the following methods in order to provide technical support to students through :

Providing computers and the laptops as much as possible for students who do not have

devices at home, by opening the school's doors to students and providing computer lab equipment at the students' disposal.

In the case of teachers who do not have computers, school principals have given them school laptop computers if they are available, and many schools have approached the Parents' Council to provide school devices.

Training parents in the form of groups for each class in the grades 1-4 on the online learning and the Microsoft Teams program, sometimes at the school, distributed in small groups or electronically through social networking groups with the help of an expert teacher and with the help of the school principal. The school principal, Suhair, said: "I held meetings with parents on several occasions, and we taught them the basics of dealing with the Teams program."

Summary of the Chapter

These were the results of each study question that were reached using objective analysis after collecting data from face-to-face, semi-structured interviews with teachers, parents, and school principals. Some quotations were presented about opinions, experiences, and challenges faced by teachers, parents, and school principals about online learning, as well as the role of principals in contributing to the success of online learning. In the next chapter, the researcher will discuss the results in light of the previous studies.

Chapter Five

Discussion and Recommendation

The main objective of this study was to explore the online learning experiences and challenges that Palestinian teachers, parents, and school principals faced in grades 1-4 in the Ramallah school district during the school closure of the COVID-19 pandemic era. The study also examined the role that school principals had in online learning throughout the pandemic and the kind of support that they supplied teachers and students in terms of education, technology, and psychological or emotional support. Accordingly, the researcher adopted the qualitative research method as a method for the study by conducting semi-structured interviews with twenty-five teachers, school principals, and parents from five public schools in the Ramallah district. Using a thematic analysis approach, the researcher presented the results of the study in the previous chapter. Therefore, the purpose of this chapter is to present the aforementioned findings and recommendations.

Experience

This part will discuss the experience of online learning process during COVID-19 pandemic faced by teachers as follows :

Teacher's Experience

The results of the analyzed data showed that almost all interviewed teachers have negative attitudes toward online learning in general. This is consistent with the attitudes of the teachers in each of the following studies (Nambiar, 2020; Ramadhan & Marwantika, 2020; Swain, 2021). where six out of ten of the teachers had completely negative attitudes.

However, three out of ten of the teachers stated that online learning had disadvantages but also had advantages, such as maintaining contact between students and teachers, saving transportation costs, lowering educational losses, and being the best educational alternative. This is consistent with a study by Lukes & Yunus (2021).

On the other hand, one out of ten teachers had a completely positive experience with the online learning. This is consistent with the opinions of the teachers in each of the following studies (Hoq, 2020; Oyediran et al., 2020; Zalloum, 2021).

From the researcher's point of view, there are several reasons behind this positive experience (10 percent) in the online learning experience, according to the opinion of that teacher. For example, this teacher is the only one whose social status is single, and this means that there are no huge responsibilities towards children or home, as happened with all the other teachers who were married and had several children in the school, and therefore the burden of responsibilities is great for them. It also means that they have plenty of time to learn and teach online. Another reason was that this teacher has a special income from her job as a teacher, and she owned a laptop computer with excellent specifications several years before the entry of the COVID-19 pandemic. In addition to that, the partners in her house were just three people; she lives with her parents and just one sister. That meant there was no pressure to use the Internet at home, and as a result, she had fast Internet at home. She also has the readiness to give lessons from the house in her room; another reason is that the teacher is still young, in her thirties. So she had the desire and motivation to teach what was new and to develop herself in her field of work and education, and her computer experience is also very good.

Parents Experience

The results showed that completely all of the parents had negative experiences with online learning in general. This result is in contrast to the results of the following studies (Hamaidi et al., 2021; Mohammed & Al Zmammi, 2021). While the results of the current study are in agreement with the attitudes of parents in each of the following studies (Hamad, 2021; Swain, 2021), While there were two out of ten of them, although their attitudes were negative, they pointed to some advantages of online learning, which were, as they mentioned, continuity of communication between students and teachers; expression of opinion for some shy students; students' self-reliance; discovery and self-learning; and immunization from disease. This is consistent with the study (Lukas & Yunus, 2021).

In the researcher's opinion, one of the reasons that made the opinion of all parents completely negative was the lack of experience and the absence of a specific or formal body or method for training, meaning that while teachers were obliged to attend intensive training on online learning on the Teams platform, and they were forced to implement it by giving electronic classes, that was under the guidance and supervision of the school principal, since for the parents, there was no training, and the matter remained purely personal diligence from the parents towards their children, so the effort was much greater. Another reason was the sensitivity and privacy of grades 1-4 for parents and their children's dependence on them at this stage, which is completely, fundamentally, and necessary for the success of online learning.

School Principals Experience

The results analysed data indicated that (two out of five) school principals had negative experiences with online learning. Still, one of them described the experience as a very difficult one. The reasons behind this extremely pessimistic experience were:

The school is relatively large in terms of the number of students, which includes 350; all of them were in grades 1-4. When compared to other schools whose principals had positive experiences, that school had a relatively small number of students, like 140. Also, The lack of computer equipment for teachers posed a significant challenge to implementing online learning during the COVID-19 pandemic. Teachers' ability to effectively deliver online lessons relies heavily on having access to appropriate computer equipment, and the principal was unable to solve certain teachers' issues by providing equipment; there were 22 teachers in the school, and 12 of them did not have a computer or laptop, while the school only had three devices, which was insufficient for all teachers; most of the time, the teachers were forced to go to relatives or other teachers' homes to give the e-lessons under the conditions of quarantine for everyone.

In addition to the factors mentioned above, the presence of a technology teacher in the school plays a vital role in addressing software and hardware issues. Since the school was a 1-4 school, there was no technology teacher in the school because there was no technology curriculum for the stage from first grade to fourth grade, and certainly the presence of a technology teacher in the school contributed greatly to solving problems with the software and hardware as an expert in technology. In contrast, the second group of principals, which

accounted for three out of five, had positive experiences. This is supported by a number of previously stated reasons, which are, in brief:

The reason was that online learning reduced educational losses and maintained communication between students' parents and teachers. Online learning was the best alternative to the educational emergency situation. saved time and money (which means the time of the absence of the principal and the teacher for seven hours from home and the cost of transportation).

According to the researcher, one of the factors contributing to these good attitudes was the fact that the school principal who expressed satisfaction with her experience was the youngest and had just been appointed as a new director a few months prior, so at the start of the closure, she had a test on her hands to demonstrate her management skills. She views any criticism of her as unwelcome, and the same is true of the other director, who is also inexperienced and new to the administration. Moreover, In addition to all of this, unlike the teacher and the parents, who dealt deeper with many specifics in the online learning platform and, as a result, exposed more problems, the school principal's nature of dealing with online learning and the Microsoft Teams program is very limited and is restricted to monitoring.

One of the five principals who expressed a good impression likewise described her experience by saying it was a "wonderful experience ". Therefore, it was necessary to search for the reasons for the very high positivity in her opinion, and the researcher found several fundamental and exceptional reasons, which were:

Education and experience: This school principal has a Ph.D. academic degree in planning from a French university. Also, the school principals have ingenuity, long experience in using technology, and a passion for it.

Distinguished faculty: The majority of the teaching staff of that school were newly appointed teachers in the ministry of education; they were young in age and also had a passion for technology and mastered it.

School principal wisdom: The researcher noticed the school principal's high level of wisdom in dealing with online learning issues and problems.

The school principals acted wisely to solve the problem of closure during the Corona period, as she developed an emergency plan to solve and overcome the crisis with teachers and students, and how to provide the school's capabilities at their service.

Compulsory assessment : Set up an incentive system for students and make serious exams for students in the cut-off subject of the syllabus so that students take online learning seriously.

The school principals created communication groups and constantly followed up with the teachers to solve their problems. He also worked in communication groups with parents and students to solve their problems. Moreover, prepare students and teachers for online learning before closing by providing training courses.

An expert teacher: Intensive training for a distinguished and intelligent teacher on the online learning system and the Microsoft Teams platform to become an expert and a reference to solve all difficult problems

Teamwork: dividing the staff into groups and working as one team together, so that the school was divided into three stages, and each stage was assigned to a trained and expert teacher to solve its problems.

The village: The economic and financial situation of the people of the village is affordable, and this helped in providing sufficient computers and a strong internet connection for students.

The peculiarity of the Competition: There is great competition between families in the desire of each family for the superiority of its members.

Family Relationships: Relationships between members of the existing family are solid, so they cooperate to help the student who does not have computers.

Furthermore, regarding the preference for using the online learning system as a completely alternative educational system to face-to-face education or as an auxiliary system for face-to-face education:

All teachers, principals, and parents interviewed agreed that online learning is never an alternative to face-to-face education, but online learning may be used as assistance in emergencies or as support and enrichment for face-to-face education.

This opinion was agreed upon in all the literature reviewed.

From the researcher's point of view, this is a natural result of the reality of the online learning system, which did not prove itself with the traditional educational system because it was not prepared for a smooth, organized, and effectively prepared transition to the online learning system.

Challenges

The most recent data from the Palestinian Central Bureau of Statistics (PCBS), dated 10/20/2020, on the percentage of online learning beneficiaries shows that 49 % of Palestinian families did not participate in online learning.

Based on this statistic, which supports my study and confirms the existence of many challenges that prevented a large number of students from enrolling in online learning, the most important of these challenges were:

Internet Access

The global website named SpeedTest, which specializes in measuring internet speed around the world, published its data for August 2019, and the results showed that the fastest mobile internet was recorded in South Korea, where the download speed reached 111 megabits per second. On the other hand, Palestine ranked last in the Arab world and penultimate globally, as the download speed did not exceed seven megabits per second.

This was entirely consistent with the results of the current study, which found that all of the teachers, parents, and principals who were interviewed in the governmental lower political schools in the Ramallah area of Palestine unanimously agreed that the most important challenge they all faced in online learning was the weakness of the internet access. which is also completely consistent with what was indicated by the majority of previous studies that were referred to in the second chapter of this study (Muthuprasad et al., 2021; Offergeld et al., 2020; Shermila et al., 2021; Singh et al., 2021; Tang et al., 2021).

From the researcher's point of view, internet access was an important challenge because one of the components of online learning is the Internet, and its absence leads to the loss of online learning. and also because the other problems can be solved by training or finding an alternative. But the problem of internet outages and weakness is related to many factors that are difficult to solve in the short term. like Weak Internet infrastructure in Palestine.

Lack of Equipment

According to the latest statistics of the Palestinian Central Bureau of Statistics (PCBS), the data of the survey for the year 2020 indicated that the equivalent of 44% of households in Palestine have a computer (desktop, laptop, or tablet). This is what the study confirms as one of the biggest challenges that face teachers, parents, and even managers: the lack of equipment, especially in the event that there are a large number of learners in the same house or in different educational stages, or that one or both parents are also teachers or employees and need to use the computer. This has led in many cases to the fact that parents are forced to deprive their sons of their right to enroll in e-classes.

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The amount of the budget allocated by the government that spends on education is basically a small budget and not sufficient to meet the needs of schools or teachers in the field of developing the technological aspect, devices and equipment.

The researcher thinks that what made the situation worse was the link between online learning and the pandemic, as online learning was imposed during the closure of the pandemic, which was accompanied by a general and global deterioration in the economic situation of many countries due to the interruption and paralysis of economic life, and therefore the idea of the need to preserve what families own in money and savings, and also that this coincided with the government's cut in salaries.

The results found here will thus allow the decision-maker to re-evaluate the amount of funding supplied to the education sector, the projects proposed by donor nations or with local assistance, and their distribution.

Technical Support Problems

The challenge of technical problems was the third challenge for teachers and parents, but it was less important for principals because the way parents and teachers dealt with online learning platforms was more in-depth, more practical, and more detailed, which exposed them to more problems in this regard. Often, the inability of teachers and parents to solve technical problems they face while dealing with online learning programs, such as links, audio, screens, activating accounts, etc., and repairing emergency malfunctions in the software or hardware.

Similar findings have been reported in these studies as challenges faced by students (Nambiar, 2020; Alqaoud & Badr, 2021; Topping et al., 2020). Also, similar findings were reported as challenges faced by parents in Hamad's (2021) study, but other studies showed that this challenge was faced by teachers (Mahyoob, 2020; Almaiah, 2020; Al-Khasawneh, & Althunibat, 2020).

From the researcher's point of view, the reason behind the exacerbation of the problem with this challenge is that it is closely related to several things:

First, it is the sudden decision in which the Ministry of Education imposed the electronic system to solve the problem of education interruption in the absence of previous experience by teachers, students, parents, or school principals. According to the researcher's notes, this issue is worse in schools serving grades 1-4 because high basic and secondary schools significantly rely on the technology teacher to handle technical issues. but because there is no technology curriculum for grades 1-4 and no technology teacher as a result. The school principal is forced to spend money from the school budget on a technology specialist.

In this context, it is necessary to point out a decrease in the level of information and technological awareness and the spread of so-called information illiteracy. It is important to note here that the experience of online learning revealed the state of technological illiteracy prevailing in our societies and even the category of learners and teachers, especially since nine out of ten of the sample of parents interviewed are university degree holders.

The results found here may help the decision-maker highlight the importance of providing a technical support staff, resident or remotely, in the event of the closure of a school or several neighboring schools to solve the technical problems facing parents, students, teachers, and the principal.

Teachers' Related Challenges

According to the findings of the previous chapter, which concluded that teacher-related difficulties are among the most significant challenges faced by both teachers and parents, many teachers struggled to adapt to the new online teaching methods and technologies. This lack of experience and training hindered their ability to effectively engage students and deliver quality education during the pandemic. Additionally, it highlighted the need for continuous professional development and support for teachers in utilizing online platforms for effective teaching and learning (Emblemsvag, 2021).

In particular, the lack of dependable technical support adds to a problem with the teacher's lack of experience in ways and methods appropriate for online learning for students in grades 1-4, compounding the issue of the teacher having to shoulder two sets of duties (Zalloum, 2021). Problems with doubling the teacher's efforts and time due to online learning, particularly for working mothers (Hamad, 2021). As well as the teacher's insecurity and lack of privacy. Moreover, the ability of teachers to use information and communication technologies (Pramana, 2021) In addition to the many difficulties parents, in particular, encountered with the teacher, there is also the fundamental issue of how difficult it is for older teachers to use their program skills and online learning due to their fear of change and the difficulty of adapting and learning the new educational system. Other difficulties include some teachers' inability to manage the e-class and students in an electronic classroom and find solutions to the chaos and inconvenience problems.

These results may mention the need for the Ministry of Education to carry out training on a practical and continuous basis for teachers in order to enable them to do several skills, like

technological skills, modern teaching methods, skills in online learning programs, e-class management skills, and crisis management skills.

This also helps decision-makers by hiring older teachers for consultation and benefiting from their experience in teaching methods; exempting them from electronic learning; and focusing on training young teachers.

School Curricula

The school's educational curricula failed to incorporate practical and real-world applications, resulting in a gap between theoretical knowledge and practical skills among students. This further hindered their ability to thrive in an increasingly digital and technology-driven world. Additionally, the school's educational curricula failed to incorporate interactive and engaging activities that promote critical thinking and problem-solving skills, hindering students' ability to thrive in online learning. This lack of adaptability and innovation in teaching methods further limited students' exposure to real-world applications of knowledge, impeding their overall academic growth, as mentioned in the study (Munastiwi, 2021). Another challenge is the privacy of some disciplines, such as mathematics, which contains abstract concepts that are difficult to explain and understand electronically, in addition to language disciplines as Arabic and English, especially writing and reading, which require the child to train practically with the teacher's help and receive immediate feedback. Without face-to-face interaction, it can be challenging for students to grasp complex mathematical concepts or improve their language skills effectively. Moreover, practical training in writing and reading necessitates individualized attention and guidance from teachers to ensure proper comprehension and application of the learned principles.

The researcher contends that interactive and compelling activities that encourage students to actively participate and collaborate are a necessary component of genuine online learning. So, according to the researcher, more in-depth and interactive educational experiences should be referred to as "online learning."

The findings highlight the necessity of accelerating the modification of educational school curricula, reconsidering the nature of their presentation and content, and developing digital and personal learning skills. It also benefits teachers and decision-makers in that they need to think of active, effective teaching methods that get the most out of students and the curriculum's rigid and traditional structure while keeping pace with the changes in the educational era and online learning.

Parents' Related Challenges

Parents'-related challenges, as mentioned in this study, were lack of readiness to implement online learning and insufficient training, which were similar findings to those of the Emblemvag.(2021) study. Also, the lack of conviction usefulness of online learning, feeling distracted and lost, the enormous psychological and physical pressure , families' lack of security and lack of privacy (Garber et al., 2020), using technology as a diversion , parents' feelings of concern about their children's academic and social futures, and parents' feelings of doubling their responsibility (Swain, 2021).

Among those challenges from the teachers' point of view are the parents' lack of experience in using Microsoft Teams to help their children , which was also mentioned in the study (Subaih et al., 2021) . The negative interventions during the electronic class that lead to

chaos, delay, and disruption of the course of the class also Lack of parental attention when monitoring their children's online learning.

The challenges related to parents had a high degree of importance and are considered the second most important challenge after equipment and the Internet for these reasons, which were: It is the nature of the role of parents in the success of the online learning process that it is the backbone of online learning for the grades 1-4 because the success or failure of online learning for this stage depends on how serious parents are in dealing with the new educational system, their conviction of the importance of the subject, and the degree of willingness of parents to give effort. The time for education on the new system and for following up on the children on a daily basis for long hours with double effort and the extent of their ability to bear the accompanying physical and psychological pressure. Another important reason is that the Ministry of Education has suddenly imposed online learning, but it has forced teachers to receive intensive training on the online learning platform and forced them to implement it to give electronic lessons. As for parents, they were not given any importance by the Ministry of Education, knowing that they are the main and main partner in online learning for the grades 1-4. The Ministry of Education was supposed to have more wisdom in managing crises. Because of the lack of experience of parents in online learning, they cannot help their children in online learning, as well as the negative interventions of parents during the implementation of the interruption, commenting, and answering the teacher's questions to his students. This leads to chaos and delays in the implementation of the online learning classes. Also the parents' insufficient online learning follow-up with their children was another challenge. These results will help the decision makers to involve parents in serious training on the importance of online learning for their children, and how to deal with teams platforms , and train them to deal with emergency situations and strive

for their success, as well as the importance of instilling educational values in the hearts of learners and raising their awareness of the importance of study commitment. In addition to the need to continuously educate parents about the importance of online learning,

The necessity of involving parents with help and support from school principals in decisions related to education, benefiting from their opinions, and listening to and solving their problems as an essential partner in the educational process, especially for grades 1-4, is crucial. Parents play a vital role in shaping their children's attitudes toward education and providing a supportive environment at home. By actively involving parents, schools can create a strong foundation for academic success and foster a collaborative approach to learning.

Students' Related Challenges

Parents, teachers, and students all mentioned difficulties with the student, such as:

The lack of student motivation for online learning , (Garber et al., 2020), lack of commitment to attending e-classes, lack of student discipline in the e-classes, and also the lack of conviction among students about the feasibility and usefulness of online learning , suffer from mental problems and disorders. (Alqiam, 2021).

Looking at the subject from another perspective, which is that the student is the center or the pillar of the educational process, and the student in the grades 1-4 has another high specificity in his inability to teach electronically alone without the help of parents in providing a computer or laptop, downloading the program, opening the application, and following up on the schedule of classes and following up after classes in the homework . It is also clear to us from the results that most of the problems related to students in grades

1-4 were problems related to mental health and personal development, such as anxiety, stress, and social-emotional issues. This highlights the importance of incorporating holistic approaches to education that prioritize students' well-being and provide support systems for their mental and emotional growth. Additionally, addressing these challenges early on can contribute to creating a positive learning environment and setting a strong foundation for their future academic success. So this study came to confirm and draw attention to the need to pay attention to the mental health of the child at this particular stage because of the many obstacles to his future personal and academic success.

Learning Outcomes and Assessment Methods

Education outcomes have suffered from a major and central challenge for parents. The expectations and outcomes of education have never been the size of the effort that was made in online learning or the size of expectations, and the decision-makers in the Ministry of Education did not succeed in finding a successful way to assess students' learning electronically and left the matter to future generations. The Ministry canceled the teachers, each of whom is evaluated in their own way, and the Ministry canceled the evaluation of online learning during the period of the pandemic. The educational loss rate was high, and the Ministry of Education failed to solve the problem of educational loss in a way that reduced the educational gap that occurred. Also mentioned in the study (Dhawan, 2020) are feelings of distraction, frustration, anxiety, and confusion felt by students and parents.

It is considered the result of general dissatisfaction with the results of online learning for cumulative and successive reasons that came together to give failed results, starting from the inability of decision-makers to plan well in advance for crises and emergencies, the lack of a good educational alternative in advance, the unstudied and improperly implemented

implementation, and the general environment. It was not prepared by all the participating elements in the education system and thus produced poor, substandard outputs. Undoubtedly, these results confirm the need for education to expedite the creation of alternative plans for education and evaluation and to benefit from the problems and errors of previous experience in online learning and e-assessment, as well as finding new methods and methods for evaluation that fit the new method of education after the online learning system revealed major weaknesses and shortcomings of the system. The current study aims to find alternative methods of assessment that are fair and realistic and that measure real skills for learning.

Planning and Readiness

Lack of readiness and preparation of teachers, students, and school principals for the online learning system; lack of readiness of the teacher's home in terms of space and number of individuals and learners; lack of clarity in the Ministry of Education's policies; lack of support for the online learning experience; lack of education's centrality in its decisions; and lack of accreditation of online learning time; lack of a clear plan for online learning or electronic evaluation or dealing with educational losses; conflicting schedules for students in the same house; and a lack of a clear schedule for online learning classes. Also, there are problems with time management for teachers and parents. (Dhawan, 2020).

From the researcher's point of view, the new method of education must have a new assessment method that fits the new standards and be a fair method that measures the achievement of educational goals, and ways to address educational loss must be reconsidered.

School Principal Support

The following types of support that teachers and students need from school principals were discussed in the seventh study question:

School Principals Role

The previous chapter's findings found that the school principals tried to support the teachers and students by encouraging students to follow up, attend online classes, and complete educational tasks. (Grissom,2021). These efforts by school principals were aimed at ensuring that students remained engaged and motivated in their learning, despite the challenges posed by remote education. Additionally, the findings suggest that this support from school principals can play a crucial role in fostering a positive learning environment and enhancing student outcomes.

The same applies to teachers: motivating and encouraging them to learn and be creative in their teaching methods is very important (Yariv and Kass, 2019). Research has shown that when teachers feel supported and motivated by their principals, they are more likely to go above and beyond for their students. This can lead to improved student engagement, academic performance, and overall creativity with the online learning experience.

Motivating and persuading parents and students about the importance of the new online learning system, as well as communicating with students and teachers. (Meador, 2020) Additionally, effective communication between principals, teachers, parents, and students is crucial for the successful implementation of online learning. Regular updates and clear instructions can help alleviate any confusion or concerns that may arise during the transition to this new educational format.

The school principals must support teachers and students academically by following up on the e-classes on a daily basis, solving their problems, considering teachers' circumstances when developing the schedule of daily online learning classes, and supporting them technically by providing computers and laptops as much as possible for students who do not have devices at home and all support resources (Tan, 2020). by opening the school's doors to students and providing computer lab equipment at the students' disposal; Training parents on online learning and using the Microsoft Teams program, sometimes at the school, which is distributed in small groups or electronically through social networking groups, to help them navigate the online learning platforms and assist their children with any technical difficulties they may encounter and enabling them to fully participate in online classes without any interruptions.

Finally

I want to finish with this quote: " Do not curse the darkness, but light a candle " This quote emphasizes the importance of taking action and finding solutions instead of sitting around with problems. It encourages individuals to be proactive and make positive changes, even in challenging situations. By embracing this mindset, the new educational changes can inspire innovation and create a brighter future for generations to come.

Online learning during the pandemic had many negatives and problems, but in the researcher's opinion, there is another point of view:

The online learning experience has demonstrated the importance of extracting value from this experience and the importance of presenting an emergency plan with educational alternatives to ensure the continuity of the educational process in times of crisis. It is

preceded by preparing the field for this new type of alternative and presenting a package of solutions to ensure the continuation of education.

The new educational style contributed to a new educational revolution, which will collaborate with other sectors to lay the groundwork for a more inclusive and effective learning system. This revolution aims to address the diverse needs of students, promote lifelong learning, and foster innovation in teaching methods.

Bringing attention to the importance of developing the infrastructure and technology for educational institutions and investing in educational platforms

Online learning during COVID-19 brought attention to applied research and directed more attention and spending on scientific academic and research contributions to the field of education.

It also helped learners rely on themselves and search for information from different sources. Furthermore, online learning has fostered a culture of self-directed learning, encouraging learners to take ownership of their education and explore diverse sources of information. This shift has not only expanded the breadth of knowledge available to students but also promoted critical thinking and independent problem-solving skills.

Reconsidering educational methods and the importance of developing digital learning methods, personal education, and electronic assessment methods have become imperative in the modern world. With the advancements in technology, traditional classroom settings are no longer the sole means of education, especially in emergency situations. Online learning brought attention to the importance of the role of parents in educating their children, which is considered the backbone of online learning, and the success of online learning depends on how serious parents are in dealing with emergency situations.

Recommendations

1. Excluding educational platforms such as Teams from using the Internet package, or those with a lower price, and providing access to it if the packages expire.
2. Providing free internet points from internet service providers at the Ministry of Education's expense, as a free internet distribution point, is distributed over specific areas where there is no internet so that students and residents of the surrounding area can benefit from them, similar to university educational institutions.
3. Providing lower elementary schools with a technical expert and specialized technical support
4. The necessity of including online learning systems, programs, and platforms in the new teacher qualification program that the Ministry of Education normally provides for new teachers with hands-on computer training.
5. Introducing a computer and technology course should be included as a foundational basic curriculum for students in educational stages 1-4 to enable the students to learn the basics of dealing with computers and technology and for students to learn to benefit from technology in a positive and effective manner. The student must experience the computer lab.
6. Providing a technically and administratively trained staff to respond electronically to teacher, parent, and student inquiries in order to provide assistance
7. Establishing a psychological support team for students, teachers, and parents by offering assistance, guidance, direction, and school discipline.

8. Inclusion of managers in training programs on online learning and how to manage crises.
9. Improving and sustaining communication channels between the school, the principal, students, parents, and education, as well as involving them in decision-making,
10. Develop regulations, laws, and legislation explaining the mechanism of using modern methods in primary education, in addition to face-to-face learning in schools.
11. Developing the Palestinian curriculum through the design of educational content and teaching aids that employ interactive learning to adapt online learning based on the educational needs of students is another challenge.
12. Improving school digital and technological infrastructure in collaboration with civil society organizations and all community and national support and funding stakeholders

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Appendices



Faculty of Education

Master's Thesis Interview Questions

Study Name :

The Experiences and Challenges of Grade 1–4 Teachers, Principals, and Parents in Ramallah and Al-Beirh Schools District Implementing Online Learning During COVID–19 Pandemic

By : Sonia Hasan Danoun

Teacher's Interview Questions

General Information

Teacher Name.....

Age.....

School name

Qualifications

Do you have an educational Qualification.....

Education major (scientific / Humanities).....

Number of children.....

Years of Experience.....

Marital Status.....

Knowledge of using computer software (few, medium, advanced).....

Questions :

1. As a teacher who experienced e-learning during school closures during the COVID-19 pandemic, how would you describe this experience? Positive, negative, successful? (illustration)?
2. To what extent do you support the use of e-learning as an alternative or auxiliary educational system for face-to-face education?
3. How does the electronic preparation (planning) method differ from the face-to-face preparation method?
4. What are the most prominent challenges faced in the planning process for e-learning during the closure, according to your experience? What are your suggestions to improve the planning process in e-learning?

5. What are the most difficult challenges you faced during the implementation of e-learning during the Corona closure period, according to your experience?

6. To what degree are the following challenges considered important and fundamental, according to your experience in e-learning during the pandemic, with clarification?

- Challenges related to the lack of equipment (computers, phones...)?

- Challenges receive quickly the Internet.

Challenges related to teaching methods and strategies?

- Technical obstacles (technical problems that occur while using the program)?

- Obstacles related to the teacher and his preparation and the lack of experience in e-learning?

- Obstacles related to the content of the curriculum (the curricula are not designed to suit e-learning)?

- Evaluation of student learning (e-learning results, whether satisfactory or not)?

The home environment and its readiness?

- Time (the time of the class if it is sufficient to achieve the goals of the class, or the time of the start of classes in e-learning)?

- Classroom administration (controlling students during the class in terms of opening and closing the microphone, chaos, entry and exit of students ... etc.)?

- Stress , psychological problems .

- The difficulty of reconciling the time of student education with the education of children.

Please arrange the challenges in descending order from most important to least important

7. How does the evaluation of students in e-learning differ from that in face-to-face education?

- 8 - What is the mechanism that you followed in evaluating the students of the grades 1-4 in the closure stage, and how satisfied are you with this method? What are your suggestions to improve the assessment process for students?
9. Have teachers been trained on e-learning during the COVID-19 lockdown? What is the training mechanism? How would you rate this training?
10. To what extent are educational goals achieved through e-learning?
11. Which do you prefer? Classroom learning or e-learning?
12. How different is the quality of e-learning implementation from a public school to a private school?
13. What are your suggestions to improve the e-learning application mechanism?

Parent's Interview Questions

General Information

Mother Name.....

Age.....

Function :.....

Qualifications :.....

The number of children as a whole.....

Number of children in the lower primary stage:.....

Knowledge of using computer software (few, medium, advanced):.....

Questions :

1. As a parent, how would you describe the experience of e-learning during the closure of schools during the Corona pandemic: positive, negative, successful? (illustration)?
2. Do you support the use of e-learning as an alternative or auxiliary educational system for face-to-face education?
3. Do you think that your responsibility as a parent in e-learning differs from that in face-to-face education? Why ?
4. What is the biggest challenge you faced as a parent in distance e-learning during the closure?
5. To what degree are the following challenges considered important and essential, according to your experience in educating your children online during the pandemic, with clarification?
 - Challenges related to the lack of equipment (computers, phones...)?
 - challenges related to internet speed and quality.

- Technical obstacles (technical problems that occur while using the program)?
 - Obstacles related to the teacher and his preparation and the lack of experience in e-learning?
 - Obstacles related to the content of the curriculum (the curricula are not designed to suit e-learning)?
 - Evaluation of student learning (were the results of e-learning satisfactory or not)?
 - The home environment and its readiness?
 - Time (the time of the class if it is sufficient to achieve the goals of the class, or the time of the start of classes in e-learning)?
 - Classroom administration (controlling students during the class in terms of opening and closing the microphone, chaos, entry and exit of students, etc.)?
 - Stress.
 - Balancing responsibilities between work and children's education
 - Balance between the different educational stages of the learners in the same house
 - students' unwillingness to commit to e-learning? Does it have anything to do with the teacher, the class, or the nature of the material?
 - Poor communication skills of students with their colleagues
 - Lack of parents' knowledge of the content or pedagogy and how to teach some subjects?
 - Need to communicate with the teacher? How easy is it to communicate with the teacher?
 - concern about the child's access to appropriate and adequate social and emotional development in e-learning?
 - Lack of experience with computer programs and technology
- Please arrange the challenges in descending order from most important to least important.

6. How would you describe your children's ability at this stage to continue their own learning without your help as a parent during distance education?
7. How would you describe your children's ability to use modern technology in education, such as computers and smart phones?
8. Do you think that their mastery of using modern technological devices reduces the burden on you as a parent?
9. How satisfied are you with the results of teaching your children through e-learning?
- 11-To what extent does e-learning take into account the individual differences between learners?
- 10-What are your suggestions to improve the e-learning experience?

Principal's Interview Questions

General Information

Name.....

Age.....

School name

Qualifications.....

Do you have an educational Qualification.....

Education major (scientific / Humanities).....

Number of children.....

Years of Experience.....

Marital Status.....

Knowledge of using computer software (few, medium, advanced).....

Questions :

- 1) How would you rate the e-learning experience as a manager?
- 2) Do you support the use of e-learning as an alternative or auxiliary educational system for face-to-face education? And why?
- 3) What are the biggest challenges you faced as a school principal in applying e-learning? How did you try to overcome these challenges?
- 4) What is the nature of the support you provided as a school principal of students in e-learning?
- 5) What is the nature of the support you provided as a director of teachers in order to facilitate the e-learning process?

- 6) What are the important basic things for creating a supportive electronic learning environment for the teacher and the student?
- 7) Have your school teachers received sufficient training courses on e-learning? If the answer is no? How did you close the training gap to empower teachers?
- 8) What is the mechanism you followed in following up on e-learning?
- 9) What is the mechanism that you used as a manager in evaluating the teacher in e-learning?
- 10) What are your suggestions to improve the quality of e-learning?
- 11) How to employ technology as a school principal in the development of education?