The Impact of Digital Education Skills on Basic School Teachers from Their Perspective in Irbid Governorate

Majdoleen Hamdi Mahmoud Mansour¹, Ashraf Ali Bani Yassin²
¹Ph.D. in Educational Technology, Ministry of Education, Princess Sumaya University for Technology, and University of Jordan
²Master's Degree in Educational Technology, Jordan
Email: m.mansour@psut.edu.jo, Ashraf_yassen87@outlook.com

Abstract: This study aimed at identifying the effectiveness of digital education skills for basic school teachers in Irbid Governorate from their point of view. The study sample consisted of (112) male and female basic school teachers in the Northern Mazar District Directorate in Irbid Governorate, they were chosen randomly. The researchers used a questionnaire specially prepared for the purposes of this study, where the study was implemented in the academic year 2021/2022. The results showed that the effectiveness of digital education skills for basic school teachers in Irbid governorate from their point of view came to a high degree, with an arithmetic mean (3.80) and a standard deviation (0.29). The study also resulted in the absence of statistically significant differences between the views of the study sample due to gender variables. The study recommended working on developing educational platforms and technological tools, developing educational software, increasing the necessary technical and logistical support, and training them on how to practice them in the classroom.

Keywords: Effectiveness; Digital Education Skills; Basic School Teachers

I. Introduction

We are living in the largest digital revolution, with the largest number of users and contacts in the past years. They are using digital tools, devices, and services in all areas of life. Science and education have been and still is the key to the progress of human societies. Educators are also keen to communicate science to all parts of the world regardless of time and place. The present age in which we live is witnessing all digital and technological technologies, which have led to changes and developments in many areas, including scientific, social, and economic, in countries and systems as a whole.

The digital learning that has characterized this time has effectively contributed to learning by relying on various digital learning resources, as digital learning resources have made learning-dependent directly on digital learning resources. The penetration and diffusion of everything digital have accelerated over the past 20 years, along with advances in digital technology and the speed with which they emerge, which are driving innovation and new applications that touch our lives in many different ways.

Digital learning is one of the most important tools on which the educational system relies, as it is presented with a set of tools and training and learning programs for students, teachers, and administrators. These tools aim to provide educational content to learners and teachers within the framework of constructive interaction between learners and teachers. It is also interested in drawing up and clarifying concepts on educational content that rely on interactive scientific technologies and media, known as active learning, to gain skills that help the learner solve problems that are presented in digital form, which rely on electronic systems.

DOI: https://doi.org/10.33258/biolae.v4i2.692
Therefore, there is an urgent need to understand the term digital education and the associated skills and challenges that it represents for society and to seek to alleviate them.

In 2019, COVID-19 swept across most countries of the world, accompanied by the World Health Organization's (WHO) declaration of the coronavirus "epidemic". Preventive measures were lifted in many Arab countries, some of which included the complete and partial closure of schools and universities in some countries. This forced all educational institutions to move away from normal education, which results in physical closeness and direct interaction among learners, to distance education. This led to calls for the use of distance and electronic education as a basic means to ensure the continuation of the educational process and the non-waste of a school year on students. Thus, 1.5 billion children and young people in 188 countries around the world had to stay in their homes after the closure of higher schools and institutions (Affouneh, Salha, Khlaif, 2020).

1.1 Study Problem

In recent years, a number of challenges and problems have arisen for those involved in the educational process, such as the acquisition of digital learning skills and the accompanying digital education, which achieves access to quality and fair education. These challenges have become evident in the transition to distance education in light of the coronavirus pandemic, accompanied by the use of digital learning tools (Al-Shayab et al, 2020).

The COVID-19 pandemic has created the largest disruption in education systems in history, affecting about 6.1 billion science students in more than 190 countries and all continents, and closing schools and other learning spaces affected 94% (of students in the world, up to 99% in low- and lower-middle-income countries). (United Nations, Political Report 2020).

With the lack of return to schools and the openness in the use of digital learning tools, which carried the biggest burden in the educational process on the part of the student and his guardian, and with the accompanying presence of a number of obstacles, challenges, and problems, it became very necessary to activate the so-called term digital education, which helps to achieve successful and effective learning.

1.2 Study Questions

The study seeks to answer the following question:

1. What is the extent of the effectiveness of digital education skills for teachers of the basic stage in Irbid Governorate?
2. Are there statistically significant differences at the significance level (5 α ≤ 0.) towards the extent of the effectiveness of digital education skills for teachers of the basic stage in Irbid governorate due to the variable (gender, educational qualification, experience)?

1.3 Importance of the Study

The importance of this study can be summarized as follows:

Theoretical significance: The study also highlights the role of digital learning and the skills that should be acquired by all elements of the educational process. In addition, it activates a new term, "digital education", which, we believe, must be implemented on the ground, because as we raise our children, we must raise our children in digital education, especially since digital tools control all aspects of our daily lives. The importance of studying also lies in the novelty of the subject, as it may provide libraries with a new theoretical framework on digital learning and the acquisition of skills, and its role in promoting aspects of
linguistic, knowledge, and social development.

Practical importance: The results of this study can help improve the performance of the digital learning system and the development of human cadres working remotely as an alternative to face-to-face learning. The study tool can also be used to measure the effectiveness of the digital learning system and the degree of possession of digital education skills. The research is important because it is a contemporary phenomenon, namely the spread of the coronavirus. The results of this study can be utilized in similar phenomena such as wars and crises. The research results may help those working in the field of training and education to know the needs of teachers, administrators, and parents, in addition to students, and to shed light on the real reality of digital learning.

1.4 Objectives of the Study
This study aimed to the following
1. Knowing the effectiveness of digital education skills for basic school teachers in Irbid Governorate.
2. Detecting the presence of statistically significant differences at the significance level \(\alpha \leq 0.5\) towards the extent of the effectiveness of digital education skills for teachers of the basic stage in Irbid governorate due to the variable (gender, educational qualification, experience).

1.5 Procedural Definitions of the Study
a. Digital Learning
Terminological definition: Digital education is learning that supports technology and tablets, as well as away from the traditional style of education. Work, that is, technology, in this case, achieves a kind of support for the teaching and learning process. (Duffo et al, 2017)

Procedural definition: Researchers define it as the planned and purposeful process in which students in the tenth grade interact with teachers to achieve specific outcomes, using electronic devices and smart devices.

Digital learning skills:
Idiomatic Definition: Digital Skills are defined as a set of abilities and competencies necessary to use digital devices and online applications, in order to access and optimally manage information, effectively create and share digital content, and communicate and collaborate with others to solve various problems. (UNESCO, 2021)

b. Digital Education
Idiomatic definition: It is a set of customs, traditions, values, skills, norms, knowledge, and rules of behavior related to the use and dealing with various virtual technologies and digitals, as well as individuals, which makes it a good tool for accomplishing the tasks and activities practiced by humans on the practical, scientific and social side, as it is the cornerstone of the contemporary digital society. (Al Mallah, 2016).

Procedural definition: Digital education seeks to create twinning and merging between traditional societal educational values and the digital world in order to keep pace with developments in the global arena and create an advanced degree of awareness of them. Strangers or relatives), this task - as the world enters the digital revolution - needs to be familiar with digital principles and values and integrate them into family tasks in raising and educating children, to explain the pros and cons of this development in the virtual world, and to create a fortified wall against the risks that may result from its neglect in the field of Rights
and public morals.

c. Potency

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

Procedural definition: It is the extent to which educational goals are achieved through the interaction between all elements of the educational process through the possession of digital education skills.

1.6 Limitations of Study

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

Human boundary: This study was applied to the basic level teachers from fourth through sixth grade.

Spatial: The study was implemented on the teachers of the Education Directorate of the Northern Mazar Brigade in Irbid governorate.

Time limits: This study was applied in the first semester of the school year (2021-2022).

Objective: Effectiveness of Digital Education Skills for Basic Education Teachers in Irbid Governorate.

II. Review of Literatures

2.1 Theoretical Framework

Education and learning are considered controversial issues in the current era, especially in light of the different names and their number in technology time. We can talk about educational terms that have become involuntarily part of our daily terminology and we have become accustomed to them, and we have become accustomed to these imbalances. We have to move from regular or traditional learning to what is known as electronic learning, distance learning, self-learning, technical learning, social media learning, mobile learning, and digital learning. We can say that digital learning is the main and comprehensive umbrella under which all those above terms are subsumed or a different form. This requires us, as researchers and educators, to digitize more the concept of learning, the skills needed, the obstacles it requires, and the necessary requirements for digital education (Bani Amer & Al-Khataybeh, 2022).

a. Digital Learning Skills:

Before talking about digital learning skills let's look at the concept of digital learning

Digital education is linked to the environment in which the learner resides. In addition, this environment must meet a number of conditions that guarantee interactivity. Moreover, this environment depends primarily on the presence of an electronic device in addition to the Internet, which enables the student to take interest in and easily access learning resources that are available on the Internet at any time. (Ali & Shaalan, 2014)

It's the interactive learning that focuses on communication between teachers and students, electronically, through a network or a network that connects to the Internet where it has to consist of a group

1. Education component: It includes teachers, learners, educational content, an electronic educational library, administrators, and the Scientific Research and Laboratory Center. (Ahmed, 2010)

2. The component that is made up of the technological side: It is the site that contains the Internet, the computer, and networks that are able to digitize this content. (Al Barrak, 2002)
3. Administrative component: It is about the desired goals behind digital education, in addition to the philosophy behind digital education. It also includes plans, methodological measures, and timetables, in addition to the existence of a type of monitoring that seeks to review these goals and how they achieved what they were designed for.

Therefore, digital education, which supports technology and tablet devices, is not only about the traditional type of education, but also about access to the Internet. It is also about the benefit of the digital integration of education for today's youth, which is directly related to the labor market (Dovo et al, 2012).

Digital education needs immediate solutions to the environmental challenges surrounding and the organizational climate of the educational institution, for example, the necessity of coordination between educational programs and institutions, addressing bottlenecks between digital and manual processes, and facing the increasing demands on digital education. Digital education includes the following electronic components: e-books, electronic publishing or electronic exams, education Electronic, electronic libraries, electronic display of results and grades, and electronic registration for courses (Bani Amer, 2021; Al-Dossi, 2010).

We all agree that the use of educational technology with people with special needs requires taking into account a number of factors that may contribute to advancing the success of such experiments, because any wrong use in choosing the technology, or the error in the way it is used will lead to negative effects on this group, perhaps More than what was expected of positive results in the event of success.

Shakur (2010) points out the need for technology to be appropriate to the person who uses it in order to achieve the desired goal. It summarizes the factors that are considered mainly in achieving educational goals and enhancing the learning process through the use of educational technology for people with special needs, as follows:
1. That the use of assistive technology is not for the sake of the technology itself so that a person with special needs does not use it if he can do the work without using it.
2. That the use of assistive technology has a clear impact on filling a deficit or deficiency of the user, who without this technology is not able to fill this deficit, or deficiency, and therefore the purpose of its use is to break the barrier between people with special needs because of their disabilities and their education.
3. This use should not be a distraction for those who use this technology. Excessive sound effects in computer programs, for example, do not help focus during the learning process.

b. Teachers’ attitudes towards the use of technology in teaching in light of the Corona pandemic

The Corona pandemic has caused a change in the means used by institutions in education, despite the trend towards implementing programmed digital technology applications, but it has become imperative to use them alongside social media. (Al-Tharwa et al., 2015: 581), “Special education teachers and teachers see great importance for the use of e-learning in schools for students with hearing disabilities, due to the effectiveness of various technology applications in increasing achievement and improving students’ skills.” How to choose the most appropriate technology for students with special needs (Zeitoun, 2004):
1. We determine the type and degree of the student's difficulty
2. Identifying the strengths and weaknesses of the handicapped student
3. Involving the student in the technology selection process
c. The role of Facebook and WhatsApp in promoting distance education

Facebook has changed the rules of communication in educational institutions, and students have become the most used demographic mass for social networking sites, especially Facebook and WhatsApp, due to the many characteristics that characterize it, both in terms of social communication, or in the scientific field of knowledge. The previously mentioned characteristics, prompted learners to use the social network, recent global statistics showed that the number of users of the social network - the most prevalent around the world “Facebook” in Jordan, reached about 5.8 million users at the end of last year 2019, according to data published on the “Internet World Status” website. The global website monitors developments and indicators of Internet and Facebook use around the world. The number of Facebook users in Jordan has reached this level, which means that the percentage of Facebook use compared to the estimated population of more than 10 million people reaches about 57%. According to the figures, the number of Facebook users Facebook in Jordan constitutes 67% of the number of Internet users in the Kingdom which is about 8.7 million users. This turnout made the process of investing in education a useful thing, making the process of creating a group or page for a material or educational topic by teachers, and inviting students to participate in it.

d. Some forms of social media use in education

1. Publishing pictures and educational videos appropriate to the subject, exchanging them among students, and discussing them.
2. The opinion poll on Facebook, which is used by the professor as an effective educational tool to increase communication between students.
3. Learning foreign languages, so that Facebook allows dialogue with different people around the world.
4. Designing and presenting new applications that serve the educational material, and benefiting from it.

The use of closed groups: “Close Group” provided by Facebook and WhatsApp as one of the most important and successful means in promoting education, where the teacher can create a group on Facebook, and WhatsApp is only for the students of the class or the subject he is studying, and he invites colleagues to join it, through his studies. Dialogue and discussion on topics related to the course.

a) Sound and image: it is the most important element of learning in our time, and no scientific content can succeed in clarifying the meaning more without using it, so the professor can take advantage of this by asking students to prepare videos, illustrations and presentations related to the topic of the lesson, It is also possible to prepare lessons for students and present them to them.
b) Creating participatory learning through Facebook by asking to publish topics for dialogue and discussion (Al-Shammari, 2015).

Childhood between the ages of 6 and 12 years is considered to be essential in a child's life so that he develops in several emotional aspects in addition to the physical, sensory, motor, and mental and this stage is characterized by the child entering school and consequently he or she will develop the social and psychological aspect (Bani Amer & Al-Khataybeh, 2021).
c) A set of general characteristics of persons with hearing impairments in the first basic stages:

1. Linguistic characteristics: The inability of a child to communicate with the environment surrounding him or her; He lost the ability to hear the sounds around him. A child with a hearing disability loses the ability to memorize (200) words, as compared to a normal child who is able to memorize (2,000) words.

2. Cognitive features: Studies and tests conducted to follow up on the condition of those with hearing impairments indicate that their cognitive abilities are no different from those of normal individuals. In other words, a child with hearing impairment possesses a level of intelligence appropriate to his or her age and is therefore aware of many of the issues surrounding him or her, such as members of his or family, the nature of the things around him, and also his ability to learn and understand some practical skills, but he loses the ability to understand most ordinary language skills. Some scientists believe that cognitive development depends on language, especially since language is the most vulnerable among the different aspects of the growth of the hearing-impaired. To develop cognitive development in hearing-impaired children, some researchers suggest the use of multiple sensory triggers with different visual experiences. Hearing-impaired children learn better when the educational situation is saturated not only with sounds but also with movement and colors, especially in the early stages of life.

3. Social characteristics: Persons with disabilities are divided into two categories based on their social interaction:
   a) Capable of social interaction: It is the group whose hearing impairment is not influential in their psychological or behavioral states, and they are able to interact with the individuals around them, and this is the group that has been targeted in this research. This depends on the role of the family in providing the appropriate environment for them, by trying to treat them as ordinary children, and they have no differences from other children. Morris (Moores, 2001) pointed out the social intolerance of hearing impairments by the surrounding community, especially parents.
   b) Unable to interact: This is the group whose hearing impairment is at very high levels, which adversely affects their psychological state, renders them prone to social isolation, and refrains from interacting with their environment almost continuously where they lack the ability to socialize with others, psychological and interoperability problems. Hearing impairments can be subject to social immaturity, due to loss of communication with others (Al Hamad & Al Atoum, 2016).

4. Academic achievement of the hearing disabled:-
   Although the intelligence of students with hearing disabilities is not low, their academic achievement is remarkably low due to:
   a) Lack of capacity for verbal expression
   b) Lack of mental awareness
   c) Depression and withdrawal (Al-Khatib & Al-Hadidi, 2009).
   d) Linking learners' and social media's educational features:
   e) It combines individual and social learning, forming a collaborative and integrative learning environment.
   f) Transforming the learning process from teaching into learning.
   g) Social networks are characterized by self-processing, which is considered one of the most important self-learning approaches based on: building, dialog, production, and cooperation.
   h) The educational situation is saturated not only with voices, but also with movement, colors, and videos.
   i) Follow up on new announcements and manage projects related to the educational process.
j) To stimulate creativity, a group of students can comprise one or more teaching tools.
k) Exchange information, discussion, and commenting, which helps to energize students' skills by learning through activities.
l) Treating information as a public right plus freedom and flexibility.
m) Education is participatory and interactive, and learners contribute to knowledge-building.
n) The learner's involvement in the building of educational content.

e. Educational social media flaws

1. Time Wasted and Distracted: Social networking sites with their attractive entertainment services may take time off students in their homework, which affects their concentration process, as many studies have shown (Khalafullah, 2013).

2. Social media addiction: The excessive use of these sites leads students to become addicted to them in terms of negative use, the consumption of destructive ideas, and contrary to values and the law. The freedom of expression and venting the inner component is the main motivation for young people to spend 9-12 hours a day using Facebook, which is why students replace reading and learning with entertainment sites such as music and movies, etc.

3. The lack of use of non-entertainment social media by our Arab societies, as Khalafullah (2013), points out: Unfortunately, in the Arab world, the use of social networking for other than recreational purposes, such as education, job search, and e-commerce, is less than in Western societies. The reason is that the common perception among Arab subscribers to these sites is that they are for communicating with family and relatives, or for entertainment, forgetting the countless benefits of communication in all fields, foremost among them education.

2.2 Previous Studies

A study was conducted by (Martzos et al., 2021) to determine the impact of social media on the lives of deaf Greeks. Preliminary data were collected using a questionnaire completed electronically by 49 deaf persons (24 males/25 females) and 229 hearing persons (30 males/199 females) from all over Greece via Google docs. The visual and spatial method of Greek sign language is reflected. The study looked at the rate of use of most known social networks (e.g. Facebook, YouTube, and Instagram) by Greek students, the daily hours of the scanning of these devices, in addition to the search of the Greek student sites, and the views on these particular sites. Regarding the purpose of using social media, the findings are as follows: People with a simple hearing impairment use both Facebook and YouTube at a higher rate, while deaf students largely prefer Instagram. In addition, deaf students who participate preferred to use desktop computer, which indicate introspection. Finally, deaf participating students largely used social media to gather information, education, communication, enjoyment, and social networking.

A study conducted by Dhawan (2020) aimed at detecting strengths, weaknesses, opportunities, and challenges using e-learning and distance learning using the analytical meta-curriculum was implemented in India. It was based on an analysis of literature, reports, electronic articles, scientific articles, papers, and academic publications that addressed this topic, especially those related to groups of people with special needs. It found that strengths and flexibility in place, time, accessibility and nutrition, technical weaknesses, student capabilities, frustration, and infrastructure deficiencies, as well as challenges related to tools used for inefficient organization, quality of digital materials provided, costs, and inadequacy.
Hodges, Moore, Locke, Trust, and Bond (2020) conducted a study aimed at revealing the difference between distance education in emergencies and online education. The researchers designed a model consisting of evaluation requirements and a set of questions through which to evaluate distance teaching in emergencies and measure the success of online distance learning experiences. The study concluded that online learning experiences differ from learning in emergencies in terms of quality of planning, online courses in response to a crisis or disaster and that college and universities working to maintain education during the COVID-19 pandemic should.

Stack and Whitney (2020) conducted a study to uncover the impact of the COVID-19 crisis on the language gaps of deaf children in the United States. For children whose school moved to distance learning, the problem of schooling was indirect exposure to the language. The survey found that the changes brought about by the pandemic made learners more disconnected from their peers, social community, language models, and personal communication, so televised means of education lacked translation into sign language or accessible visual language. The way English was copied was used to illustrate and revisit the techniques used, as well as continuing care in the education of the deaf and retraining the teachers to make sure that this crisis does not worsen the crisis of linguistic deprivation for deaf children in the United States.

Cagiltay et al (2019) conducted a study aimed at revealing the opinions, reactions, and perceptions of special education teachers on pedagogical techniques and social media in distance education. The study community consisted of 27 special education teachers in Ankara, Turkey. The study used the analytical descriptive approach and the use of interviews. The results of the study showed a severe lack of use due to poor infrastructure, teachers’ perceptions of the importance of using technology to improve the quality of study results, and their awareness of the importance of using modern technologies. However, it needs to develop tools related to the detection of physical movements and touch screens, as they help to enhance the transfer of knowledge and skills to students and provide many forms of feedback.

The researchers have benefited from previous studies in the theoretical aspect of the study by reviewing the literature, books, methods and approaches related to the subject. While the current study differed from previous studies in its approach to knowing the point of view of the teachers of the first basic stages, the research methodology used the emergency stage (Covid-19), and the teachers of students of the first school stages.

III. Research Methods

The researchers use the descriptive approach in the current study for its relevance to the objectives of the study, which concerns the effectiveness of digital education skills in the time of digital learning from the point of view of teachers in Jordan. The researchers used the questionnaire as a means of data collection.

3.1 Study Population

The study population consisted of all the teachers of the basic stage (fourth, fifth, and sixth basic) in government schools affiliated with the Directorate of Education in the Northern Mazar District, for the academic year (2022/2021).
3.2 Study Sample
The study sample was randomly selected from teachers of the basic stage (fourth, fifth, and sixth basic) in government schools affiliated with the Directorate of Education in the Northern Mazar District, where the study sample consisted of (112) males and female teachers.

3.3 Study Instrument
A questionnaire was designed by researchers to collect data and answer the study questions. The questionnaire was designed with the aim of identifying the effectiveness of digital education skills in the era of digital learning from the point of view of teachers in Jordan. The questionnaire consisted of (32) items.

3.4 The Validity of the Study Instrument
The questionnaire was presented to a group of arbitrators with expertise and competence, with the aim of verifying its validity, and the extent to which it achieved the objectives of the current study, and they were asked to express their opinion and observations in the paragraphs of the study tool as they saw fit, and their suggestions and observations were taken, and the required modifications were made.

3.5 Study Instrument Reliability
The reliability of the tool was verified using Cronbach alpha coefficient, where the reliability coefficient was (0.94) through the values of the indicated reliability coefficients. These values are good and acceptable for the purposes of this study.

3.6 Study Procedures
The researchers followed the following procedures to achieve the objectives of the study:
1. The researchers obtained a book facilitating the task, from the competent authorities, to facilitate the researchers’ task in implementing its study.
2. Refer to the previous educational literature, and benefit from previous studies in preparing the study tool.
3. Preparing a questionnaire by the researchers to know the effectiveness of digital education skills in the era of digital learning from the point of view of teachers in Jordan, and presenting it to a group of arbitrators with experience and expertise in this field.
4. The questionnaire was applied to an exploratory group, to ensure its validity and reliability, and to ensure the validity of its paragraphs in achieving the objectives of the study.
5. The questionnaire was applied to the study sample of the teachers of the Northern Mazar District.
6. Data collection for the study sample that responded to the questionnaire.
7. Unloading the data, monitoring its results, and performing the appropriate statistical analyzes using (SPSS), to reach and discuss the results of the study.
8. The effectiveness of digital education skills in the era of digital learning was determined from the point of view of teachers in Jordan using the following equation:
   a. \((\text{the highest value of the alternative} - \text{the minimum value of the alternative}) ÷ \text{number of levels} = \text{range for each level}\)
   b. \((5-1) ÷ 3 = 1.33\) range, so the levels are:
      1. From (1-2.33) Low
      2. From (2.34-3.67) average
      3. From (3.68-5) high
Statistical analyses

To answer the study questions, statistical treatments were used using the Statistical Package for Social Sciences (SPSS) as follows:
1. To answer the first question, arithmetic means, standard deviations, and ranks were used.
2. To answer the second question, a three-way analysis of variance was used with respect to the variable gender, educational qualification, and experience.

IV. Results and Discussion

1. To answer the first question, arithmetic averages, standard deviations, and ranks were calculated for the effectiveness of digital education skills for basic school teachers in Irbid Governorate, and Table (1) illustrates this.

Table 1. Means, standard deviations, and ranks of the effectiveness of digital education skills for basic school teachers in Irbid Governorate

| Level   | Rank | Standard deviation | Means | Item |
|---------|------|--------------------|-------|------|
| High    | 1    | 0.82               | 4.37  | 21   |
| High    | 2    | 0.86               | 4.30  | 22   |
| High    | 3    | 0.95               | 4.28  | 25   |
| High    | 4    | 0.99               | 4.26  | 1    |
| High    | 5    | 0.86               | 4.24  | 2    |
| High    | 6    | 0.92               | 4.14  | 16   |
| High    | 7    | 0.89               | 4.09  | 3    |
| High    | 8    | 0.88               | 4.05  | 17   |
| High    | 9    | 0.88               | 4.03  | 6    |
| High    | 10   | 0.99               | 3.96  | 14   |
| High    | 11   | 1.01               | 3.95  | 20   |
| High    | 12   | 0.90               | 3.89  | 11   |
| High    | 12   | 0.89               | 3.89  | 9    |
| High    | 14   | 1.01               | 3.81  | 24   |
| High    | 15   | 0.95               | 3.75  | 23   |
| High    | 16   | 0.93               | 3.72  | 15   |
| High    | 16   | 0.84               | 3.72  | 7    |
| High    | 18   | 1.29               | 3.70  | 19   |
| Medium  | 19   | 0.99               | 3.66  | 5    |
| Medium  | 20   | 0.90               | 3.65  | 29   |
| Medium  | 21   | 1.24               | 3.62  | 12   |
| Medium  | 21   | 0.95               | 3.62  | 32   |
| Medium  | 23   | 0.85               | 3.60  | 31   |
| Medium  | 24   | 0.88               | 3.59  | 8    |
| Medium  | 25   | 0.96               | 3.56  | 30   |
| Medium  | 25   | 1.03               | 3.56  | 28   |
| Medium  | 27   | 1.06               | 3.52  | 10   |
| Medium  | 28   | 0.98               | 3.49  | 18   |
| Medium  | 29   | 0.88               | 3.46  | 13   |
| Medium  | 30   | 0.83               | 3.44  | 27   |
| Medium  | 31   | 0.68               | 3.39  | 4    |
| Medium  | 32   | 1.04               | 3.38  | 26   |
| High    | 32   | 0.29               | 3.80  | Total |
Table 1 shows that the arithmetic average of the effectiveness of the digital education skills of the basic education teachers in the Irbid governorate was high, with an arithmetic average of 3.80 and a standard deviation of 0.29. The paragraphs of this resolution were high and medium, with paragraph 21 being first, with an average arithmetic score of 4.37 and significantly higher, while paragraph 26 came in the last with an average arithmetic score of 3.38 and an average score.

These results are attributable to the high level of digital education skills among the teachers at the beginning of the coronavirus pandemic, as intensive training sessions were held for teachers to meet the requirements of e-learning and distance learning to develop the technological and digital skills of teachers. This is also due to the increased interest of the Ministry of Education in developing the ability of teachers to employ teaching technology and acquire digital education skills, the intensification of courses, and the increase in technical support and capabilities that have led to the provision of the infrastructure for technological innovations in terms of computers and digital and technological learning devices. This result is attributed to the increase in the holding of courses and educational qualification programs conducted by the Ministry, which is concerned with the acquisition of the teachers of the Northern Mazar Digital Teaching Skills Brigade, which in turn worked to develop the skills of digital education at the basic level in Irbid Governorate.

2. The results of the second question, which reads: Are there statistically significant differences at the significance level (0.05 ≤ α ≤ 0) towards the extent of the effectiveness of digital education skills for teachers of the basic stage in Irbid governorate due to the variable (gender, educational qualification, experience)?

This question was answered by calculating the arithmetic averages and standard deviations of the effectiveness of digital education skills for teachers of the basic stage in Irbid Governorate, and Table (4) illustrates this.

Table 2. Means and standard deviations of the effectiveness of digital education skills for basic stage teachers in Irbid Governorate according to gender, educational qualification and experience variables

| Standard deviation | Means | Sum  | The level | Variable       |
|-------------------|-------|------|-----------|----------------|
| 0.34              | 3.78  | 45   | Male      | sex            |
| 0.24              | 3.81  | 67   | Female    |                |
| 0.28              | 3.82  | 66   | Bachelor  | Qualification  |
| 0.28              | 3.79  | 46   | Postgraduate |                |
| 0.28              | 3.80  | 52   | 10 years or less | Experience |
| 0.29              | 3.79  | 60   | 11 years and over |               |

Table (2) indicates that there are apparent differences in the arithmetic averages, and to find out the significance of these differences, a triple analysis of variance was used, to reveal the presence of differences in the effectiveness of digital education skills for teachers of the basic stage in Irbid Governorate, according to the variables of gender, educational qualification and experience, and the table (3) Explains this.
Table 3. The results of the ANCOVA analysis of variance test reveal the existence of differences in the effectiveness of digital education skills for teachers of the basic stage in Irbid Governorate according to the variables of gender, educational qualification, and experience.

| Level of Significance | F value | Average of squares | Degrees of freedom | Sum of squares | Contrast source |
|-----------------------|---------|--------------------|--------------------|---------------|-----------------|
| 0.211                 | 1.58    | 0.128              | 1                  | 0.128         | Sex             |
| 0.097                 | 2.81    | 0.228              | 1                  | 0.228         | Qualification   |
| 0.749                 | 0.10    | 0.008              | 1                  | 0.008         | Experience      |
| 0.150                 | 2.10    | 0.171              | 1                  | 0.171         | Gender*Education Qualification |
| 0.894                 | 0.02    | 0.001              | 1                  | 0.001         | Gender*Experience |
| 0.293                 | 1.12    | 0.091              | 1                  | 0.091         | Academic Qualification * Experience |
|                       |         | 0.081              | 104                | 8.431         | The error       |
|                       |         |                    | 111                | 8.926         | Total           |

Table (3) indicates that there are no statistically significant differences between groups in the arithmetic averages of the effectiveness of digital education skills for basic school teachers in Irbid Governorate, according to the variables of gender, educational qualification and experience.

These results may be attributed to the fact that the effectiveness of digital education skills for basic school teachers in Irbid governorate is represented in a set of features and competencies that can be realized while dealing with distance teaching, regardless of gender, educational qualification or experience, because the Corona pandemic is a global pandemic, Its impact was on the educational sector in general, as teachers of various specializations and experiences forced their qualifications to follow up their students and work to develop and develop their digital competencies because the teaching process has become electronic, and we infer from this result that the variables (gender, educational qualification, and experience) are not influential in creating statistically significant differences in Response to the questionnaire items that measure the effectiveness of digital education skills for teachers of the basic stage in Irbid Governorate.

V. Conclusion

Based on its results, this study came out with the following recommendations:
1. Working on developing educational platforms and technological tools, developing educational software, and increasing the necessary technical and logistical support.
2. Holding training courses for male and female teachers to improve technological competencies, which ensure better learning in light of the current circumstances.
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