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The impact of digitization on the level of electronic professional development for teachers in light of the availability of its tools and the ability to use them from the teachers' point of view

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Abstract. The current study aimed to know the impact of digitization on the level of Electronic professional development for teachers in light of the availability of its tools and the ability to practice them from the teachers' point of view ,The study sample consisted of (150) male and female teachers, who were selected in a stratified random manner The descriptive survey method was used in the current study, To achieve the objectives of the study, a questionnaire was developed, and its validity and reliability were confirmed. The results showed that the effect of digitization on the level of electronic professional development for teachers was medium, and the results of the study showed that there were statistically significant differences at the significance level ($\alpha \leq 0.05$) according to the gender variable in favor of the female category. And there were no statistically significant differences according to the variable years of experience, and there were no statistically significant differences according to the educational qualification variable In light of these results, the study recommended that the Ministry of Education attach great importance to digitization and its tools so that it works to stimulate conducting studies and research from time to time, To study the nature and conditions of educational work and its need for professional development of teachers through the use of the digital technological aspect.

Keywords. digitization, Electronic professional development

Introduction

The need arises in the modern era for professional development in various fields of work, in terms of developing human resources in all sectors to meet their needs, especially educational needs. Therefore, we find that many contemporary educational systems focus their efforts and resources towards achieving professional development, due to the magnitude of the positive effects on the level of individuals and societies. Professional development stems from a pivotal point based on the need to formulate the human personality of members of society and to provide them with a set of values and characteristics that raise their ability to keep pace with modern developments and adapt to them. In a manner that ensures the achievement of goals and objectives efficiently and effectively at a level that ensures proper utilization of the resources available to the educational organization and success in achieving the goals at a high level (Al-Baher, 2021).

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Technological development has contributed to the emergence of a number of advanced educational methods, trends and strategies that are concerned with developing the elements of the educational environment, starting with the teacher and passing through the curriculum and ending with the student, who in turn forms the center of the educational process. Therefore, we find that the introduction of computers in the educational process constituted a source for the modernization and development system based on the automation of thinking and its removal from the circle of stereotyping, dependency and traditionalism to a wider area of good learning and talent development as well as available capabilities and capabilities (Ali, 2012).

Professional development comes in light of the technological development and modernity whose winds have blown the whole world since the beginning of the twentieth century, as a basic requirement for the growth of any society that takes the reins of striving and hard work towards achieving sustainable development. Therefore, it was necessary for educational systems to adopt digital technology in achieving development endeavors, on top of which is the professional development of those working in the education sector, especially teachers, considering that the teacher is the cornerstone of the educational-learning process. (Al-Sa'adi, 2007)

The importance of digital technology in achieving individual and collective goals alike, due to its association with different professions, where the profession constitutes a means for the individual to serve others and achieve self, Professional development also constitutes an important aspect of the educational process that includes technological studies, practical experiences and knowledge related to professions in various social and economic sectors. It is mainly concerned with preparing with manual work, preparing a good citizen who possesses knowledge, skill, and integrated personal experience, and all of this culminates in values that stem from a set of tastes, tendencies and trends until they crystallize to emerge in the mold of values, The Arab Organization for Education, Culture and Science, in agreement with the Arab Union for Technical Education and UNESCO, has adopted the definition of professional development: expressing this by saying: "It is that type of development that includes educational preparation and the acquisition of professional skills and knowledge,So that it is mobilized by regular or private institutions, for the purpose of preparing skilled individuals who are able to implement and produce in various industrial, agricultural, health and commercial disciplines" (Al-Sayed, 2009).

Based on the foregoing, it can be said that professional development, along with digital technology, constitutes a basis for human resource development, in an effort to ensure comprehensive development in various fields. So that it constitutes a solid infrastructure for any professional development that aims to prepare, train and qualify human cadres on the basis of knowledge, skill and integrated personal experience and within the criteria of efficiency, effectiveness and excellence through the various educational institutions that work on providing the basis of technical knowledge and skills and raising youth awareness of their importance, Develop technical knowledge and basic skills in the workforce and provide long-term education to improve professional and technical knowledge and skills and create new skills to suit economic and social growth (Horeya and Wallonas, 2010).

Looking at extracurricular education, which falls within the system of systematic education, we realize the importance of educational activities and practices related to digitization in the intelligence of the torch of professional development for teachers - specifically - because of its effectiveness in developing their abilities and capabilities in creating a distinct learning environment, It includes the state of creative integration and effective blending in the professional development process and an attempt to establish a serious case of creating methods and methods of professional development at the behavioral, psychomotor,

motive, emotional and cognitive levels. In order to ensure the achievement of professional development goals and try to crystallize them within a template of digital and electronic modernity experienced by societies (Ayesh, 2009).

It is important to address some of the recommendations that can contribute to the establishment of the electronic qualification of the teacher, including:

- Establishing a teacher e-qualification body or body that is responsible for planning e-qualification programs for teachers.
- Establishing an electronic network linking schools and the Ministry, diversifying and expanding the electronic qualification programs for teachers.
- Providing incentives and grants for teachers to raise their enthusiasm to participate in electronic qualification programs.
- Providing competencies of specialized trainers for e-training.
- Holding meetings between specialists from university faculty members and a group of teachers to discuss all important problems, and try to find solutions to them, and provide the school with all distance education techniques.
- Highlighting the role of advanced integrated education between technology and the traditional method in Vision 2030 and promoting the knowledge economy (Al-Hammadi et al., 2017).

Study problem and questions

Despite the rapid development in the world of digital technology, and the generalization of the opportunity to benefit from it in our various educational institutions, especially schools, the researchers did not notice any tangible change for the teacher in the possibility of benefiting from what is available from the technology with its various technologies. Since indoctrination and traditional methods of education are still the master of the educational situation on the educational ground, this may be due to the weak technical and technological preparation of teachers, as the Ministry of Education gives traditional courses in preparing teachers instead of giving them courses that improve their technological and technical performance to develop their modern technological skills. This is demonstrated by the results of the study of: Al-Jabr (2020), Al-Badour (2013), Ahmed and Al-Saeeda (2012), so this study seeks to know the role of digital technology in the electronic professional development of teachers, by answering the following questions:

- What are the teachers' views of the impact of digitization on the level of electronic professional development for teachers?
- Are there statistically significant differences at the significance level (a = 0.05) in the study sample's estimates of the impact of digital technology on teachers' electronic professional development due to gender, years of experience, and school stage?

The importance of studying:

The importance of the current study stems from the importance of knowing the impact of digitization on the electronic professional development of teachers through the challenges and obstacles facing vocational education and what this requires from strategic planning and carrying out future studies of educational work, The aim of the current study is to shed light on how to stimulate the electronic professional development of teachers by ensuring the activation of the role of digitization and its tools.

So it is hoped from the current study:

- To serve as a reference for the stakeholders and those responsible for preparing and developing teachers through what the study will present on the impact of digitization on the electronic professional development of teachers.

- Preparing and training teacher's appropriate and effective training to be able to keep pace with the rapid successive developments in education, in line with the modern digitization world.

- To enrich the knowledge side of scientific studies related to the impact of digitization in the professional development of electronic for teachers.

Idiomatic and procedural definitions:

In order to achieve its objectives, the study adopts the following terms:

Digitization: is the technology that reduces information in the form of numbers stored in the computer, so that it can be used anywhere and at any time. (Al Baher, 2019).

As for the procedural ones, they are: the use of technology to obtain information through communication devices and modern technologies (e-mail, the Internet, and social media, and not relying on paper books only).

Electronic professional development: It is the total of training activities and educational sessions carried out by the teacher electronically with the aim of developing his knowledge and developing his capabilities, to achieve his professional progress, raise his competencies and solve his problems that enable him to contribute to improving the educational process" (Al-Jabr, 2020).

As for procedural: they are the opportunities available to teachers to acquire new knowledge and skills through the practice of electronic activities such as in-service learning, attending seminars, visits, workshops and scholarships.

The limits of the study:

The limits of the study included the following:

-Spatial limits : Directorate of Education for the Fourth Amman Region.

- Human limits: teachers working in the schools of the Directorate of Education for the Fourth Amman Region.

-Time limits: the academic year 2021/2022.

Related previous studies:

This part will include a presentation of the previous studies that were reviewed, both Arab and foreign, arranged historically from newest to oldest, as follows:

Dashhan (2021). conducted a study aimed to develop a proposed vision for developing the professional development programs for teachers in the light of the requirements of the Fourth Industrial Revolution, the researcher presented the conceptual framework of the professional development for teachers and the fourth industrial revolution. The research used the descriptive approach, using a questionnaire as a mean to collect its data which was prepared, codified and applied to a sample of teachers in Assist Governorate with a total of (710), in order to identify the teachers' views on the degree of the importance of the requirements that needed to develop the professional development programs for teachers to keep pace with the Fourth Industrial Revolution. The research reached that the requirements needed to develop the professional development programs for teachers to keep pace with the fourth industrial revolution, where the sample members indicated that they are highly important, represented in three aspects which are: the first aspect is the requirements related to the goals of the professional development for teachers, while the second aspect is the requirements related to

the content of the professional development programs for teachers, and the third aspect is the requirements that related to the styles of the professional development for teachers in the light of the fourth industrial revolution, as well as the results of the study indicated that there are no statistically significant differences between the average opinions of the sample members according to the gender variable, except the aspect related to the requirements of understanding multiple cultures, where the differences were in favor of males at the level of significance (0.05), the results of the study also indicated that there are statistically significant differences at the level of significance (0.01) between the average responses of teachers in favor of secondary school teachers and the holders of masters and PhD qualifications . At the end, the research presented a proposed vision to develop the professional development programs for teachers in the light of the requirements of the fourth industrial revolution, including its premises, its components, its stages and procedures of implementation, obstacles of its implementation, how to overcome it and the indicators of its success.

Mamcg (2021) conducted a study aimed at identifying the degree to which public school teachers possess digital learning skills and their attitudes towards using it in light of the Corona pandemic, to achieve the aim of the study, the mixed method was used to suit the nature of the study.This was done by developing a questionnaire consisting of (24) items in light of the Corona pandemic for learning skills distributed over two areas, and the study sample consisted of (350) male and female teachers from primary government school teachers in the capital Amman / Wadi Al-Seer District. During the first semester 2021/2022, appropriate statistical methods were used to process data using arithmetic averages and standard deviations.The results of the study showed that the degree to which teachers possessed digital learning skills came to a high degree, and the results showed that teachers' attitudes in light of the Corona pandemic came to a moderate degree.

Abu Shkheidem (2020) conducted a study aimed at revealing the effectiveness of e-learning from the point of view of teachers at Kadoorie University. The study sample consisted of (53) faculty members at Kadoorie University who taught through the e-learning system. Where a questionnaire was used and applied to the study sample. The results of the study revealed that the study sample's evaluation of the effectiveness of e-learning from their point of view was moderate. The study recommended holding training courses in the field of e-learning for both teachers and students and to help get rid of all obstacles that prevent benefiting from the e-learning system, and the need to combine face-to-face education and e-learning in educational institutions.

Ugur (2020) conducted a study the increasing use of digital technology by young people has become a major concern in the 21st century. This access to technology has led to hot-button arguments surrounding the place of these technologies in our lives and the implications that they have for the future. The incorporation of multimodal and digital technologies in courses has been increasing, with documentaries, social media posts, and blogs host significant spaces for learning and coursework. These forms of knowledge and communication have started to become legitimized in the classroom setting, in addition to the traditional educational technologies such as lectures and textbooks. This paper explores the assumptions by instructors and students concerning why and how multimodal and digital technologies are incorporated into undergraduate classes by qualitative approach. Also, the actual experiences that students and instructors have in using these forms of media in an educational context are investigated via participant observation, in-depth review and open-ended questionnaire techniques along the research.

Gapsalamov (2020) conducted a study aimed of a historiography analysis of the work on the implementation and use of digital technologies in the national education systems of the

world's leading countries. the aim of study was to identify difficulties in the implementation of digital technologies in a national education system and directions for their improvement. the research allowed to conclude that the introduction of digitalization in the national education system generates new difficulties, such as the lack of understanding of the ongoing processes, insufficient funding, etc. However, countries can enter a new level of economy digitalization only with targeted government support.

Al-Shanti (2019) also conducted a study aimed at identifying the impact of digitization on teacher development within the basic school stages. The study sample consisted of (356) male and female teachers who were selected in a random cluster manner. The results of the study showed that there were no statistically significant differences in the fields of study due to the gender variable. And the presence of statistically significant differences in the fields of study due to the variable of specialization, and the absence of statistically significant differences in the fields of study due to the variable of experience, and the absence of statistically significant differences on the available technology due to the study variables.

Hassan (2019) the research aimed to identify the importance of electronic professional development of the teacher in the light of the Fourth Industrial Revolution, and to identify the methods of electronic professional development and its constraints in public education schools, and ways to overcome them in the light of the Fourth Industrial Revolution, and to reach the suggested scenarios for the requirements of electronic professional development in the light of the Fourth Industrial Revolution To achieve, the researcher applied the questionnaire to a sample of teachers of (primary, preparatory and secondary schools in Sohag, Cairo and Alexandria. Search Results: The research revealed that: Obstacles of electronic professional development, including: (Lack of provision of electronic training programs for teachers, and lack of attention to the importance of these programs, which is one of the most important requirements of the Fourth Industrial Revolution - and increase the burden of teaching which requires teachers to do) , Requirements of electronic professional development, including the most important: (the ability to use information technology techniques- and create an educational climate suits the use of technologies - and the existence of plans to assess the current and future needs), There are no statistically significance differences between the opinions of individuals and the sample of the study about (the axes of the study, except for the axis of the constraints of the professional development of teachers, teaching in light of the requirements of the age) according to the variable of geographical distribution, There are no statistically significant differences between the opinions of the study sample about (the study axes) according to the variable of the study stage, Developing the suggested scenarios for the requirements of electronic professional development in the light of the Fourth Industrial Revolution, including (Reference scenario: Extension scenario - Reform scenario - Root shift: Innovative scenario).

Langset (2018). In Norway, digital skills are defined as an essential proficiency in the national curricular plans, and learning worldwide is in many ways changed by contemporary Web 2.0 technologies. Even so, teacher training is lagging behind when it comes to developing digital learning cultures and providing digital role models for future teachers. At the Norwegian University of Science and Technology (NTNU), we used a Massive Online Open Course (MOOC) approach to provide a digital professional development (DPD) program to facultyties at the Department of Teacher Training. A main idea was to develop this program at the meson-level (horizontally) with some mutual structures and offerings, avoiding a top-down approach, which, based on experience, is likely to fail. The findings in this study present a four-step model, the collaborative learning approach (CLA), to account for the development and implementation of a blended learning mooc (BMOOC) for professional digital competency development.

Neufeled (2018) conducted an exploratory study in Britain that aimed to identify the impact of using digital education tools on student participation, competence and ownership of learning.The researcher used the mixed method by developing the study tool. A sample consisted of (632) teachers. In light of the research results, the study recommended making use of digital education tools or any data applications collected when making decisions related to the application of digital learning or new technological applications in schools.

Webb, Jones, and Barker (2014) conducted a study that focused on teachers' possession of educational technology skills, and the sample included (430) male and female teachers, The results confirmed the necessity of training teachers on educational technology skills, especially the skills of designing educational dialogue within the framework of educational technology, and discussion management skills.

Commenting on previous studies and the location of the current study, including:

By reviewing previous studies, researchers have benefited from them in the literature of the theoretical framework, in building research, and writing the perceptions of vocational education teachers in Jordan of the problems facing vocational education and ways to overcome them by informing them of the results and recommendations. The researchers have noticed that there are similarities between the current study and some previous studies, such as the Algebra study (2020), the Al-Badour study (2013) and the Qur'an study (2002) in that the study population is the primary and secondary school teachers,

The problems facing teachers of this stage is the main focus. What distinguishes the current study from previous studies is that it is one of the first studies that studied the perceptions of teachers working in the schools of the Jordanian Ministry of Education of the problems facing the electronic professional development of teachers and ways to overcome them, and linking them to variables; Gender, years of experience, and grade level for teachers.

Method and procedures

The descriptive survey method was used to achieve the objectives of the study.

Study Population: The study population consisted of all teachers working in the Fourth Amman Education Directorate, who numbered (1148), and Table (1) shows the distribution of the study population according to the study variables.

Table (1): The distribution of the population according to the study variables

Variable	Category	Frequency	Total
Gender	Male	700	1148
	Female	448	
Educational level	primary	830	1148
	secondary	318	
Years of experience	Five years or less	450	1148
	6-10 years	320	
	More than 11 years	378	

Source: Ministry of Education 2021

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The study sample

According to Steven K. Thompson's equation, the minimum size of the stratified random sample representing the community was calculated at the significance level ($\alpha \leq 0.05$), and it was (130) male and female teachers. In anticipation of waste in the sample, the actual sample size (160) parameters were determined. The researchers distributed a questionnaire to the study sample, which is located in the schools of the Directorate of Education for the Fourth Amman Region.(150) questionnaires were retrieved out of (160) questionnaires, and Table (2) shows the distribution of the representative study sample, which was extracted according to the Thompson equation according to the study variables.

Table (2): Distribution of the sample according to the study variables

Variable	Category	Frequency	Total
Gender	Male	79	150
	Female	71	
Educational level	primary	75	150
	secondary	75	
Years of experience	Five years or less	45	150
	More than five years	61	

Study tool:

To achieve the objectives of the study, the study tool was developed by referring to the educational theoretical literature related to the subject of the study, such as the study of Limit (2002), Abdel Kabir and Alawi (2005) and Badour (2013),In light of the foregoing, the study tool was developed in the form of a questionnaire consisting of (31) items divided into three areas.

Validity of the study tool:

To verify the validity of the study tool, the content validity method was used, by presenting the study tool in its initial form to (10) arbitrators, specialists, and experts in the academic and educational fields, With the aim of expressing their opinion on the degree of conformity of its contents and paragraphs to the subject that you will work to measure, and then adopting what the opinion has settled on so that (80%) of the arbitrators' observations are taken to serve and achieve the objectives of the study.

Internal consistency validity:

To verify the internal consistency of the questionnaire, the Pearson correlation coefficient was used to measure the relationship between each paragraph and the total score of the domain to which it belongs. As well as between each field and the total score of the questionnaire, and the results were as follows:

Table No. (3) Correlation coefficients of the paragraphs of each domain with the total score of the questionnaire

the field	Paragraph	correlation coefficient	Paragraph	correlation coefficient
Availability of digital tools	1	**0.0716	6	**0.645
	2	**0.661	7	**0.792
	3	**0.706	8	**0.841

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the field	Paragraph	correlation coefficient	Paragraph	correlation coefficient
	4	**0.891	9	**0.545
	5	**0.660	10	**0.586
Ability to use digitization and its tools	1	**0.789	6	**0.750
	2	**0.777	7	**0.530
	3	**0.664	8	**0.545
	4	**0.660	9	**0.707
	5	**0.684	10	**0.606

It is clear from Table (3) that all the correlation coefficients between each paragraph and the domain to which it belongs were positive and statistically significant at the level (0.01).

Table No. (4) The values of the correlation coefficients between the domains and the total score of the resolution

the field	correlation coefficient
Availability of digital tools	0.954 **
Ability to use digitization and its tools	0.967 **

** function at (0.01)

It is clear from Table (4) that all the correlation coefficients between each field and the total score of the questionnaire were positive and statistically significant at the level (0.01), and this indicates that all the questionnaire items were honest and measure the goal for which it was set.

Stability of the study tool:
To verify the stability of the resolution, the stability coefficients of Cronbach's alpha were found for the resolution fields and the resolution as a whole, and the results were as follows:

Table No. (5) The values of the stability coefficients for the resolution domains and the resolution as a whole

the field	Cronbach's alpha coefficient
Availability of digital tools	0.877
Ability to use digitization and its tools	0.856
The study tool as a whole	0.951

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Table (5) shows the values of Cronbach's alpha coefficients for the resolution domains and the resolution as a whole, all of which were high, which reassures that the resolution has a high degree of stability.

Statistical processors:

To achieve the objectives of the study, the Statistical Package for Social Sciences (SPSS) program was used to analyze the data and obtain the results as follows:

♣ Arithmetic averages and standard deviations to identify the responses of the sample members to each paragraph of the questionnaire.

♣ Pearson Correlation Coefficient to verify the internal consistency of the questionnaire.

♣ Cronbach's Alpha coefficient to verify the stability of the resolution.

♣ Independent-Samples T test to determine the significance of the differences between two independent groups.

♣ One-way ANOVA to find out the significance of the differences between more than two independent groups.

The criterion for judging the arithmetic averages of the questionnaire items was as follows:

Table (6) Arithmetic averages and degree of approval

SMA	degree of approval
3.6-5	High
2.34-3.67	medium
1-2	low

Study Variables:

A. Independent variables:

- It includes gender and has two categories: male and female.
- Years of experience: 5 years and less, 6-10 years, more than 11 years
- Academic level: primary, secondary

B. Dependent variable:

The study sample's estimates of the role of digital technology in teachers' electronic professional development.

Study results and discussion:

The results of the study, which were reached by answering the study questions, were presented as follows:

The results related to the first question, which reads: What are the teachers' views of the impact of digitization on the level of electronic professional development for teachers?

To answer this question, the arithmetic averages and standard deviations of the responses of the study sample members in general and for each field of study were calculated, and Table (7) shows this.

Table (4): Arithmetic averages, standard deviations, and order of the effect of digitization
At the level of electronic professional development for teachers

No.	Area	Mean	Std.	Rank	Level
1	Availability of digital tools	3.54	0.81	**1**	Moderate

2	Ability to use digitization and its tools	3.53	0.91	**2**	Moderate
	Total	3.51	0.71	Moderate	

It is noted from Table (4) that the effect of digitization on the level of electronic professional development for teachers was average, as the arithmetic mean was (3.51) and the standard deviation was (0.71), the fields were average. The availability of digital technology tools ranked first, with a mean (3.54) and a standard deviation (0.81). In the last rank came the field of ability to use digitization and its tools with an arithmetic mean (3.42) and a standard deviation (1.01). As for the paragraphs of each field, the results were as follows:

1. Availability of digital tools

The arithmetic averages, standard deviations, and the order of the degrees of approval of the sample members on the items of the field of occupations and tools for professional education were calculated, and the results were as follows:

Table (7) Arithmetic means, standard deviations, and order of degrees of agreement of the sample members on the paragraphs of the availability of digitization tools

No.	Paragraph	Mean	Std.	Rank	Level
1	The school is keen to keep abreast of technological developments with regard to digitization tools	3.63	1.10	1	Moderate
2	Digital computer programs are available in the school	3.60	1.06	2	Moderate
3	Existing digitization tools are available that contribute to the speedy completion of work	3.57	1.10	3	Moderate
4	The school is keen to deal positively with technological changes in order to improve performance	3.45	1.04	7	Moderate
5	The digitization tools available at the school contribute to raising the level of quality of services provided to faculty members	3.49	1.09	4	Moderate
6	The school provides the appropriate	3.51	1.09	5	Moderate

	technical means to carry out the tasks (educational and administrative) on a permanent basis				
7	The digitization tools used in the school are consistent with the requirements of the work	3.52	1.05	6	Moderate
	Total	3.55	0.90	Moderate	

Table (7) shows that the arithmetic averages of the degrees of approval of the sample members on the paragraphs of the availability of digitization tools ranged between (3.63-3.45) and all of them are of medium approval. Paragraph (1) (the school is keen to keep pace with technological developments with regard to digitization tools) obtained the highest arithmetic average and its value is (3.63). While paragraph (4) (the school is keen to positively deal with technological changes in order to improve performance) got the lowest arithmetic average and its value is (3.45), The table also shows that the total of the paragraphs obtained an arithmetic average of (3.55) and an average degree of approval, and this indicates that the degree of availability of digital technology tools from the teachers' point of view was moderate, This may be attributed to the efforts of school administrations and the responsible bodies of education to save as much as possible from the amount allocated to this body, and it can also be attributed to the lack of awareness among the administrations of the importance of these important tools.

2. The field of ability to use digital technology tools:

The arithmetic averages, standard deviations, and the order of the degrees of approval of the sample members on the paragraphs of the teacher's domain were calculated, and the results were as follows:

Table (8) Arithmetic averages, standard deviations, and ordering To the degree of approval of the sample members on the paragraphs of the ability to use digitization and its tools

No.	Paragraph	Mean	Std.	Rank	Level
5	Digital technology helps me create an email and use it in the educational process	3.05	0.988	1	Moderate
4	Digital technology helps me use search engines to browse websites	3.13	0.992	2	Moderate
6	Digital technology helps me download books and programs from the Internet and upload them	3.07	1.060	3	Moderate

2	Digital technology contributes to enabling me to follow distance learning conferences and seminars	3.06	1.113	4	Moderate
1	Digital technology contributes to enabling me to use the smart board to give educational material	3.13	1.025	5	Moderate
3	Digital technology helps me create and delete electronic files	3.05	1.054	6	Moderate
8	Digital technology helps me transform educational activities into simplified digital content	3.00	1.126	7	Moderate
7	Digital technology contributes to enabling me to use and activate data protection programs	3.08	1.156	8	
	Total	3.00	0.327	Moderate	

Table (8) shows that the arithmetic averages of the degrees of approval of the sample members on the paragraphs of the ability to use digitization and its tools ranged between (3.00 - 3.13), and all of them were of medium approval. Where paragraph (5) (digital technology contributes to enabling me to use the smart board in giving educational material) the highest arithmetic average and its value is (3.13), Paragraph (7) (digital technology helps me transform educational activities into simplified digital content) obtained the lowest arithmetic average value (3.00). The table also shows that the total of the paragraphs obtained an arithmetic average of (3.00) and an average degree of approval, and this indicates that the ability to use digitization tools from the teachers' point of view was moderate, This may be due to the weakness of the training programs provided by the education systems for teachers, and this may be due to the neglect of the technical training aspect by the educational middle and social circles, This may also be attributed to the lack of controls during service, meaning that the teacher feels safe about his presence in a government job, as he himself does not aspire to change and development, and the lack of accountability from the competent authorities, whether it is a school administration or an educational system, made him hesitate to develop himself continuously, which weakened his competencies, Paragraph (7) (I have the ability to convert educational activities into simplified digital content) obtained the lowest arithmetic average and its value is (3.00). This can be attributed to the fact that the teacher is unable to understand the working mechanism of the digital technology tools available in the school, as it is apparent in the students' understanding and their ability to assimilate the educational materials given in the classroom. This can also be attributed to the difficulty of formulating educational content, from here it is clear that we have many ways to contribute to solving the ability to adapt and use the available

digital technology tools, including holding training and qualification courses for teachers, In cooperation with local institutions in line with the requirements of the modern era, so that they are able to give teachers a practical material that qualifies them to work inside and outside their community, In addition to the necessity of creating effective oversight of teachers in terms of practical performances in the classroom, with the availability of all the necessary tools the teacher needs to be able to perform his work well. And focus in the in-service training programs on matters that contribute to the development of his competencies for all technical tools and digital technology.

Results related to the second question: Are there statistically significant differences at the significance level (a = 0.05) in the study samples estimates of the role of digital technology in teacher development due to the variable of gender, years of experience and school stage?

This question was answered as follows:

a. Gender variable: The arithmetic means and standard deviations were calculated, and the (t-test) test was done according to the gender variable, and Table (9) shows that.

Table (9): Arithmetic means, standard deviations, and t-test according to the gender variable

Area	Gender	Frequency	Mean	Std.
Availability of digital tools	Female	79	3.47	0.376
	Male	71	3.05	0.343
	Total	150	3.03	0.319
Ability to use digitization and its tools	Female	79	3.09	0.335
	Male	71	3.07	0.376
	Total	150	3.05	0.343

It is clear from Table (9) that the values of the significance levels were greater than (0.05) in all fields, and this indicates that there are no statistically significant differences at the significance level less than or equal to (0.05) in the estimates of the study sample due to the gender variable. This indicates the similarity of male and female teachers' estimates of the level of availability of digitalization tools, and this may be due to the fact that teachers, whether male or female, have both been subjected to the same digital technology available in training institutes, which has generated a common culture between the sexes. It can also be attributed to the fact that both of them have also undergone the same training programs, which produced a common thought and culture between the sexes, and this indicates the similarity of teachers' assessments of the level of availability of digital technology and its tools.

B. Years of experience variable: The arithmetic averages and standard deviations were calculated, according to the years of experience variable, and Table (10) shows that.

Table (10): Arithmetic averages and standard deviations according to the variable years of experience

Area	Experience	Frequency	Mean	Std.
Availability of digital tools	**Five years or less**	45	3.01	0.382
	6-10 years	61	3.02	0.352
	More than 11 years	44	3.00	0.360

Ability to use digitization and its tools	**Five years or less**	45	3.09	0.330
	6-10 years	61	3.15	0.307
	More than 11 years	44	3.08	0.343

To find out the significance of these differences, a one-way analysis of variance test was conducted, and the results were as follows, as shown in Table No. 11:

Table No. (11) One-way analysis of variance to find out the significance of the differences in the estimates the study sample according to the variable years of experience

the field	Contrast source	sum of squares	degrees of freedom	mean squares	value (f)	Statistical significance
Availability of digital tools	**between groups**	0.007	2	0.004	0.027	0.974
	within groups	19.428	147	0.132		
	the total	19.435	149			
Ability to use digitization and its tools	**between groups**	0.458	2	0.229	2.170	0.118
	within groups	15.502	147	0.105		
	the total	15.960	149			

It is clear from Table (11) that the significance levels were greater than (0.05) in all fields, and this indicates that there were no statistically significant differences at a significance level less than or equal to (0.05) in the study sample estimates due to the experience variable, This indicates the similarity of teachers' assessments of the ability to use digital tools, regardless of their experiences, and this may be due to the lack of renewal of ideas, curricula and content even in classroom or classroom activities, which contributed to the process of repeating the use of digital technology tools on the one hand. On the other hand, it led to the lack of experiences for the majority, as experience was not a strong factor, affecting that experience be a strong factor in the emergence of differences among male and female teachers in the field of ability to use digital technology, This could also be attributed to the teachers not being given training courses throughout the service period, giving them many experiences.

c. The study stage variable: The arithmetic averages and standard deviations were calculated, and the t-test was calculated according to the study stage variable, and the table (12) shows that.

Table (12): Arithmetic averages, standard deviations, and t-test according to the academic stage variable

Area	Educational level	Frequency	Mean	Std.	degrees of freedom	T value	Sig.
Availability of digital tools	primary	75	3.01	0.376	148	0.023	0.982
	secondary	75	3.07	0.348			
Ability to use	primary	75	3.00	0.334	148	0.149	0.882
	secondary	75	3.00	0.322			

digitization and its tools							

It is clear from Table (12) that the values of significance levels were greater than (0.05) in all fields, and this indicates that there were no statistically significant differences at a level of significance less than (0.05) in the estimates of the study sample due to the variable of the study stage, This may be attributed to the majority of male and female teachers who have taught all levels of study without regard for the importance of using digital technology tools on the level of awareness, understanding and comprehension of students.

Recommendations:

- That the Ministry of Education direct towards a knowledge society and work to reconsider the contents and objectives of technical education and training in terms of quantity and quality.
- Work on allocating an appropriate budget for digitization in all its aspects to be able to meet its needs effectively.
- Granting male and female teachers a financial and moral amount of training in the use of digitalization tools, which are characterized by continuous change.

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