Educational technology and quality performance during the (COVID-19) pandemic

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Abstract

The study aimed to identify educational technology and its relationship to the quality of performance in light of the Coronavirus pandemic from educational counselors in secondary schools in the Karak governorate, and the study sample, which amounted to 171 counselors, was chosen. A questionnaire was developed to measure educational technology and its relationship to the quality of performance in light of the Corona crisis. The results indicated educational technology was moderate, and the degree of quality of performance was high. A presence statistically significant differences in the reality of using educational technology due to the variable of gender in favor of females, and to the variable of experience in favor of experienced . A statistically significant differences in the performance of educational counselors due to the variable of experience and in favor of experience . A statistically significant differences in the relationship between the reality of using educational technology and the degree of performance.

Keywords: Coronavirus; educational technology; pandemic ; quality performance

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1. Introduction

In 2020, the world faced a complex problem, one of the most complex problems that has occurred in the twenty-first century so far, as a result of the outbreak of the new coronavirus (COVID-19), as it imposed itself and swept the world, and affected all walks of life, and its impact on the educational process was announced. The state of emergency in all countries of the world to confront this pandemic, forced many educational institutions, universities, and institutes to stop their activities and close them on a large scale in most countries the world, in March 2020, most governments in more than (73) countries announced the closure of their schools, where more than (421) million learners globally in their homes, that is, approximately (363) million learners worldwide, from pre-primary to higher education, including (57.8) million students in higher education, according to data issued by the Organization (UNESCO, 2020) One in five students globally has been left out of school due to the COVID-19 crisis.

This closure and cessation of formal education in schools and educational institutions have prompted decision-makers to search for modern means to maintain the stability of education, to complete academic courses to switch to distance education programs, and use technology as an alternative as the only irreplaceable option; To ensure the progress of the academic process both in schools and to provide education during the closure period and to save classrooms from being lost (Whalley et al., 2021; Nuankaew & Nuankaew, 2021).

Achieving a quality integrated educational system requires a radical change in the existing organizational climate and its determinants. This concept also requires extensive training to build a culture of quality. Creating an appropriate climate is a prerequisite for achieving the quality strategy in its modern sense. It also requires interaction with the constituent societal systems. For society, the twenty-first century requires individuals with special specifications, high skills, high-performance levels, and a high level of accountability to meet the challenges facing educational institutions to prepare individuals to have a role in the labor market, within the framework of attention to comprehensive quality, control and management (Emmanuel, 2020).

Educational technology contributes to providing learners with knowledge and information about what is modern in learning different topics and helps them to eliminate the barriers between specialized branches of knowledge, provides them with different types of innovative, critical, and scientific thinking, and provides many opportunities for creativity, and also works to help learners spread their ideas Through the Internet and receiving new ideas in a way that enhances their learning. This technology also contributes to the development of learners' skills by communicating between them and their teachers and between the learners themselves and the client (Girsang, & Saragih, 2020; Jack & Higgins 2019).

It is necessary to pay attention to inputs and processes as a system and outputs as a product of the educational process. Education technology is the method that uses all available material and non-material capabilities, effectively to accomplish the desired work to a high degree; and to help learners achieve the goals with a high degree of proficiency.

The requirements of educational technology are numerous and endless, and the more the educational counselor masters his profession the more experience he has; It begins with inventing new and diverse means of transferring information and skills to students and activities and developing the famous means employed by previous educators, and as a result of the tremendous development in educational theories and practical practices and the entry of technology into multiple areas of life, its entry into the field of education was a must to serve the goals of the educational process And

solving the problems it faces, and the learning process is a well-thought-out and organized in terms of preparation, implementation, and evaluation. Best. This development of human, scientific, and technological knowledge represents an accelerated clarity for many societies to introduce radical changes in their policies, plans, and methods of education. The changes have led to the emergence of new patterns and methods in the teaching and learning process. Technological development and its use in the educational process has become an urgent necessity to benefit raising the efficiency of the educational process (König et.al, 2020).

The entry of educational technology into the classroom led to a clear change in the process of learning and teaching, and through what technological tools provide as a source of knowledge, a tool for reproducing or reconfiguring knowledge, and a means for audio-visual communication, in a way that develops the learner's skill and scientific knowledge, and the skill of the mentor. Educational in skill performance (Košir et.al., 2020).

Education technology is also used as a means of delivering information quickly and with high accuracy most of the time because it has imposed itself greatly and has become a role in the educational process, and it has an impact in helping the educational counselor and the learner to improve their performance together (Salama, 2018).

Employing modern technology in the service of education within schools in our society is an inevitable necessity, as employing technology has become an integral part of the educational process, whether in the field of public education and its schools, or higher education and its various institutions. Countries and all countries of the world have paid great attention to the introduction and use of modern technology, as new forms of education have emerged that were not known before, such as electronic schools, open education, distance education, and virtual schools, using modern technology and its electronic technologies at all educational levels (Al-Anzi, 2018; Galvis & Carvajal 2022; Rodway & Schepman 2023; Zhang, 2022; Oueida et al., 2023).

Nwoobi et al. (2016) indicate that educational technology helps learners spread their ideas via the Internet and receive new ideas in a way that enhances their learning. Educational technology is also used as a means of delivering information quickly and with high accuracy most of the time because it has imposed itself greatly and has become a role in the educational process, and it has an impact in helping the educational counselor and the learner to raise the level of their performance together.

Educational technology contributes to providing learners with knowledge and information about what is modern in learning different topics and helps them to eliminate the barriers between specialized branches of knowledge. It also works to help learners spread their ideas and receive other new ideas that may benefit the educational process. Educational technology also contributes to developing learners' skills by communicating between them, their teachers, and the learners themselves.

In light of the successive developments in the information age, educators seek to keep pace with these developments through attempts and efforts to transform the normal learning environment mediated by the educational counselor into a multi-source learning environment, and given the development of technology and the remarkable growth in its capabilities, employing it in supporting the educational process and developing long-term strategies including gamification and integrating them In education, it has become a core objective of contemporary educational reform (Oyelere et al., 2020).

The past few years have also witnessed remarkable progress in the field of modern technology tools in general. Given this progress, modern technology has knocked the field of education, providing ideas and solutions to the problems facing the educational process, the most important of which are; The scarcity of available materials, the large number of students in the classroom, the spacing of distances, and the adaptation to students' minds that have been dominated by technology to facilitate the access of information to the mind in a way that matches the objectives of the curriculum enjoyably (Salama, 2018).

Al-Harbi (2016) focuses on the importance of introducing educational technology and the extent to which teachers need sufficient computer skills; To be used in education the strategy followed by the educational counselor is based on psychological theories and is defined and organized by the teacher, and requires preparation and prior organization.

Al-Anezi and Saadeh (2018), report that the optimal use of educational technology skills helps the educational counselor to perform his work efficiently and saves a large part of the time allocated to the lesson, with the possibility of obtaining a better educational level interestingly, and also works to create an atmosphere of interaction, and teamwork inside and outside the classroom, which provides an opportunity for students to develop their abilities and improve their talents. Educational technology is one of the important indicators of the success of the educational process; Because it is one of the effective means to enrich the educational situation; And because it works to bridge the intellectual side and the tangible reality; It brings concepts and terminology closer to the students' minds, and links theory with actual application.

Abu Rabie (2015), goes on to say that educational counselors possess the skills of using educational technology that enable them to produce the collective curriculum according to the individual specifications within the group of students, and thus group learning according to the individual characteristics of the learners will become possible, and in this case, it allows students to learn according to their rates as any student will be able to receive an education that suits his abilities.

The educational counselors' possession of the skills of using educational technology depends to a large extent on the degree to which educational counselors use this technology and their desire to adopt it. As the entry of educational technology and its entry into the field of education and learning has become part of the educational process and what it contains, it is necessary to highlight the degree of use of educational technology and its relationship to the quality of performance in light of the Corona crisis from educational counselors in secondary schools in Karak Governorate, and how the basic skills Educational technology can serve the elements of the educational process, which are: books, educational guides, and students. From this point of view, this study came; To know educational technology and its relationship to the quality of performance in light of the Corona crisis from educational counselors in secondary schools in Karak Governorate.

The COVID-19 pandemic has created the largest disruption in education systems in history, which has affected students on all continents affected science in more than 190 countries, and witnessed the closure of schools and other places of learning, as successive health developments forced schools to respond, adapt and change with those developments; To ensure its continuity and interaction with society, the environment and all the influencing factors surrounding it; To keep pace with the change towards employing educational technology in performing its tasks, functions and operations; Which makes it more necessary to employ and use educational technology in the required development and change processes.

Given the rapid progress of educational technology and the impact it has on the teaching process, because technology has become indispensable to achieving comprehensive development, and because education modernization should be based on developing teaching methods, methods, and strategies, the use of technology in education has become an effective means in developing these methods. Methods and Strategies (Salama, 2018). The Ministry of Education has worked to introduce educational technology into the learning and teaching process, due to its importance and its impact on simplifying the curriculum, its content, and its corresponding activities to help the educational counselor, train the learner, and clarify the content most easily.

Based on the importance of educational technology that is employed in the learning and teaching process and according to the recommendations of some studies such by Abu Yahya, (2018); Al-Janabi (2017), and Oluyemisi (2015), and the necessary response to conduct more research aimed at taking into account the use of educational technology In the process of learning and teaching, the need has emerged from educational counselors in secondary schools in Karak governorate to know educational technology and its relationship to the quality of performance in light of the Corona crisis.

Therefore, this study will seek to answer the following questions:
1. What is educational technology in light of the Corona crisis from educational counselors in secondary schools in the Karak Governorate?
2. What is the quality level of educational counselors' performance in secondary schools in Karak governorate from their point of view?
3. Are there statistically significant differences at the significance level ($\alpha \leq 0.05$) towards the reality of using educational technology from the point of view of educational counselors due to the variables (gender, educational qualification, and experience)?
4. Are there statistically significant differences at the significance level ($\alpha \leq 0.05$) in the quality level of educational counselors' performance in secondary schools in Karak Governorate from their point of view due to the variables (sex, educational qualification, and experience)?
5. Is there a statistically significant relationship at the significance level ($\alpha \leq 0.05$) between educational technology and the quality level of performance of educational counselors in secondary schools in Karak Governorate from their point of view?

1.1. Theoretical Framework

The third millennium is characterized by the era of tremendous technological progress in various fields and the progress and rapid increase in information and its nature, and the inventions of machines, equipment, and means of transmitting information and keeping it are a great witness to the tremendous progress in this era.

These successive developments in the field of technology, communications, and information led to the emergence of distinct formations of concepts describing teaching/learning methods and the different methodological approaches that employ this technology in all its forms to develop and enrich educational and educational processes. To replace some of them with each other, and others claim that there are clear differences and distinctions between them (Javaid et.al., 2022). Therefore, the issue is not a matter of synonymous concepts, but the presence of clear differences in use makes each of these concepts slightly different from others in the application, and these differences are affected by many factors, including the nature of the institution's relationship with learners, the types of materials used, and the media used to present them. The necessity of defining and analyzing the concept of e-learning is to identify the distinctions and similarities between it and the concepts related to those concepts and analyze them to reveal their implications and challenges (Singh et.al, 2021)

The coronavirus pandemic had a significant positive impact on the increasing use of a set of features and features that distinguish the use of technology in the mentoring process of the learning environment from other educational environments; This extended to education in various institutions. Employing technology in the counseling process became a governmental and even social requirement in light of the outbreak of the Corona pandemic. In front of that, schools found themselves facing the challenge of the distance learning experience, regardless of the multiple opinions of satisfaction or dissatisfaction with the experience; However, the experience has become a fait accompli, forcing educational institutions to engage in it (Abdallah Altarawneh & Awwad Alomoush, 2022).

Educational technology plays a role in improving the educational guidance process to reach the degree of mastery, achieve the desired goals increase the return on education, with the least time and the least capabilities, and reduce education costs while maintaining its quality (König et.al., 2020). Educational technology contributed to the presentation of information. In addition to the traditional verbal form, it added audio and visual forms, including what is related to the learning time, where it became flexible and not fixed, where the learner can proceed with his learning at his own pace (Aini & Mudjiran, 2020).

The trends towards employing educational technology and employing its entry into the educational guidance process led to a clear change in the learning and teaching process, and through what technological tools provide as a source of knowledge, a tool for reproducing or re-forming knowledge, (Aluede & Adubale, 2020).

The availability of educational technology is in itself a vital impact on educational institutions, especially in light of increasingly complex conditions. This does not exclude the change in schools that are no longer immune to what affects their relentless pursuit of realizing, absorbing, and introducing advanced systems, and adapting to modern administrative ideas and trends, which give them the status of modernity, development, and excellence, so that the employment of educational technology in the institutional context. The quality of learning and support for students learning the supporting infrastructure and community service are affected in one way or another and to varying degrees in the sustainability of distance education under the conditions of the coronavirus pandemic (Crandall et.al., 2020).

Moreover, the educational counselor faces in his practical life multiple variables that he cannot keep pace with except through the provision of scientific and practical expertise that qualifies him to do so. Knowledge is constantly changing, especially in the field of education, studies provide new things every day, and societies change in their systems, policies, methods of planning and development, and the relationships between their members. The learner is the most affected by these changes that put teachers in front of a great challenge that requires keeping pace with these changes through their possession of renewable skills that cannot be Acquired by chance or by theoretical experience only, but rather by practicing it and practicing it in the classroom (Dores et.al, 2020).

1.2. Related Research

The study (Mahmoud, 2020) aimed to identify the applications of artificial intelligence in the educational process in light of the challenges of Corona, and the study adopted the descriptive approach, through extrapolation and analysis of studies, research, books, and periodicals. And the role of artificial intelligence applications in facing these challenges, and the study concluded that there are several challenges and problems related to the following aspects: (educational process, educational administration, teacher, learner, and parents), and the study made several recommendations, including the need to adopt some artificial intelligence techniques in educational institutions.

Spreading technological culture and raising awareness of educational institutions and society about the positive effects of artificial intelligence. It is possible, by employing some of the applications of artificial intelligence in the educational process, such as smart education systems and smart content, to face some challenges and problems.

The study by Abu Shkhaydam (2020), aimed to reveal the effectiveness of e-learning in light of the spread of the Coronavirus at Kadoorie University. Coronavirus through the e-learning system and the necessary data was collected using a questionnaire whose stability coefficient was (0.804) and was applied to the study sample. The continuity of e-learning the field of obstacles to the use of e-learning the field of interaction of faculty members with e-learning, and the field of student interaction in the use of e-learning is medium.

The study of Al-Sabateen (2019) aimed to identify the degree to which postgraduate students possess basic skills in practical subjects with the specialization of educational technology in Jordanian universities from the point of view of the faculty members, as it followed the descriptive analytical approach, and that the study sample consisted of (57) respondents from Faculty members who teach postgraduate students in private and public Jordanian universities included in the study, and the researchers relied on data collection through the questionnaire that was designed for this study. And faculty members for multiple computer software and continuously in line with the requirements of the times.

The study of Al-Janabi (2017) aimed to investigate the use of educational technology in chemistry by middle school teachers in the capital, Baghdad, from the point of view of their principals. Descriptive survey, the study sample consisted of (254) principals from the intermediate stage of public schools in the capital, Baghdad, using the simple random sampling method.

The study by Abu Rabie (2015) aimed to know the level of awareness of the principals of private primary schools of the importance of educational technology and its relationship to the level of teachers' employment of this technology from the point of view of teachers in the capital Amman governorate. School principals for the importance of using educational technology from the basic stage of private schools in the capital Amman and the second to measure the extent to which teachers employ technology from the teachers' point of view. The study sample consisted of (331) male and female teachers using the stratified random sampling method. From the teachers' point of view, it was average, and the level of teachers' use of educational technology from their point of view was average.

Yulia (2020) conducted a descriptive study aimed at clarifying how the Corona pandemic affected the reshaping of education in Indonesia. Learning through the Internet, and the study concluded that there is a high-speed impact of the Corona epidemic on the education system, as the traditional method of education declined to spread instead of learning through the Internet because it supports learning from home and thus reduces the mixing of individuals with each other, and reduces the spread of the virus, and the study proved the importance of using Various strategies for smoothing and improving education through the Internet.

And in a study conducted by Basilaia & Kvavadze (2020) aimed to study the experience of moving from school education to online learning during the spread of the Coronavirus epidemic in Georgia, it was based on the statistics of the first week of the teaching process in a private school and its experience in moving from face-to-face education. She turned to e-learning during the Corona pandemic, where she discussed the results of online education and the platforms (EduPage and Gsuite) were used in the educational process, based on the statistics of the first week of the online

teaching process, the researchers concluded that the transition between traditional education and online education was successful, and it can be used From the system and skills acquired by teachers, students and school management in the post-pandemic period in different situations such as those with special needs who need extra hours, or through increased effectiveness of group teaching or increased student independence and acquisition of new skills.

Sinedy's (2015) study aimed to know the degree of availability of educational technological competencies among faculty members at the College of Education at Sultan Qaboos University and the degree of their practice. The study, which is highly practiced, deals with the main elements of the teaching process, such as preparing a plan, analyzing educational content, and defining educational strategies. It also showed a positive, statistically significant correlation between the degree of availability of educational technical competencies among faculty members at the College of Education at Sultan Qaboos University and the degree of their practice of it.

Oluyemisi (2015) conducted a study aimed at knowing the effective role of educational technology in the school from the point of view of secondary school teachers in the Elissa government district in Osan, where a questionnaire was developed for the study, and the researcher used the descriptive approach. The study sample consisted of (120) teachers from among the teachers. Schools were randomly selected, and the results showed that school teachers had positive perceptions towards the use of educational technology tools.

Merç (2015) conducted a study aimed at verifying the use of technology by male and female teachers in the classroom. The quantitative research method was used, and the questionnaire was distributed to a sample of (86) teachers. During the practice of the teaching experience, it was noted that there was insufficient training and that there was a lack of Technological devices, teachers' teaching practice was not at a satisfactory level, lack of integration between classrooms and technology used, and incompatibility between the real-world teaching program and the electronic program.

1.3. Purpose of the Study

The current study seeks to achieve the following objectives:

1. A statement of educational technology by educational counselors in secondary schools in the Karak governorate from their point of view.
2. The quality of educational counselors' performance in secondary schools in Karak governorate from their point of view.
3. Studying the effect of the variables (experience, gender, educational qualification) on educational technology and its impact on the quality of the performance of educational counselors in secondary schools in Karak governorate from their point of view.
4. Providing recommendations and suggestions that could contribute to enhancing the role of using educational technology by the performance of educational counselors in secondary schools in Karak Governorate based on the results of the study evaluation.

The study's significance is as follows:

1- Highlighting the importance of the study in employing the use of basic skills in the applications of educational technology in the service of the educational counselor and the student.

2- It is expected that the current study constitutes a frame of reference for educational counselors in secondary schools in the Karak governorate to know the reality of the use of educational technology.

1.4. Procedural definitions

The reality of using educational technology: it is planning for the education process and the use of all educational methods to reach better education, that is, it is not limited to a specific method or one technological device but rather goes beyond all of them to develop the educational program.

As for the procedural reality of the use of educational technology: those skills that relate to the ability of educational counselors to employ techniques and various technologies and innovative ideas and use them in the educational process, whether in the technical aspect "skills for dealing with technologies from devices, materials and software", or the personal aspect "personal skills such as the ability to present and clarify and analysis, perception and interpretation," or the employment aspect, the skills of employing technology in education, and the selection of the device, material, and innovative idea appropriate to the educational situation.

The quality of performance: achieving the maximum productivity of the individual and the machine. It is defined procedurally as the degree of response of the study sample members to the tool that was designed to measure the quality of performance.

Corona Virus (COVID-19): It is a viral disease that affects the respiratory system of people of all ages and the most affected people with chronic diseases.

2. METHOD AND MATERIALS

The methodology used in this study is based on the descriptive analytical approach, which includes a desk survey concerning references and sources to build the theoretical framework for the study and a field survey to collect data through the study tool and analyze it statistically to answer the study questions.

2.1. Participants

The study population consisted of all educational counselors working in secondary schools affiliated with the four directorates in Karak governorate, namely (Karak region, Southern Mazar, Al-Qasr, and Southern Jordan Valley), and their number is (218) male and female counselors, according to the statistics of the Directorates of Education in Karak Governorate for the academic year (2019/2020 AD). Given the small number of members of the study community, the study population will be its sample, and questionnaires were distributed to the members of the study community, and the number of valid questionnaires for analysis became (171), thus forming (78.4%) of the study population, and Table No. (1) shows the distribution of the study sample members according to its variables.

Table 1

Distribution of the study sample according to the levels of its variables.

Variable	The level	The number	Total
	Male	72	171
Sex	feminine	99	
	Bachelor's	130	*171*
Qualification	Postgraduate	41	
Experience	1-5 years	74	
	6 - 10 years	54	171
	11 years and over	43	

Al-Majali, S. (2023). Educational technology and quality performance during the (COVID-19) pandemic. *Global Journal of Information Technology: Emerging Technologies*. *13*(2), 113-133.

2.2. Data Collection Tool

A questionnaire was developed to measure educational technology and its relationship to the quality of performance in light of the Corona crisis by educational counselors in secondary schools in Karak Governorate, this questionnaire consisted of three parts:

Part One: It includes general information (gender, experience, and educational qualification).

Part Two: This part contains paragraphs covering the independent study variable (the use of educational technology). The paragraphs of this variable were guided by the study of (Sinedy, 2015; Abu Rabei, 2015; Al-Aqili, 2013).

Part Three: This part contains paragraphs that measure the performance of educational counselors in secondary schools in the Karak governorate. The construction of the paragraphs of this variable was guided by a study (Shaaban and Al-Abedy, 2009). The answers were classified according to the five-point Likert scale and were identified with five answers (strongly agree, agree, neutral, disagree, strongly disagree), and the answers were given numbers from (1-5) so that the number (1) indicates (strongly opposed) and the number (2) on (opposite), number (3) on (neutral), number (4) on (agree), and number (5) on (strongly agree).

Accordingly, if the arithmetic mean value of the paragraphs is greater than (3.68-5), the level of perceptions is high, but if the value of the arithmetic average ranges between (2.34-3.67), then the level of perceptions is average, and if the arithmetic average is less than (2.33), the level of perceptions Low, according to the upper-lower criterion.

2.2.1. Validity of the study tool

To verify the validity of the questionnaire paragraphs, the study tool was presented to several arbitrators from professors of educational administration and educational counselors, and they were asked to revise and revise the paragraphs of the questionnaire in terms of the clarity of the paragraphs, the quality of their linguistic formulation, and the extent to which they belong to the field you measure, and to modify or delete any of the paragraphs that They believe that it does not achieve the objective of the questionnaire, as the data was collected from the arbitrators after that, and it was reformulated according to what was agreed upon by (80%) of the arbitrators.

2.2.2. Internal Consistency

The reliability coefficient was extracted, using Cronbach's Alpha equation for internal consistency, where the questionnaire was distributed to an exploratory sample from outside the sample, whose number was (30) members of the study community table (2) show the results:

Table 2

stability coefficient

The tool	stability coefficient
The reality of the use of educational technology	0.88
The performance of educational counselors in secondary schools in Karak governorate	0.89
Total	0.91

It is clear from Table No. (2) that the stability coefficients for all variables and fields of the study are high, and they are research-acceptable stability coefficients for conducting the study.

2.3. Data Analysis

The first and second questions: Descriptive Statistic Measures were used to describe the characteristics of the study members, and to answer the study questions, where arithmetic averages and standard deviations were used. The third and fourth questions: One-way analysis of variance and Scheffe's test for statistically significant variables were used. The fifth question: Simple Regression Analysis was conducted to test the effect of the independent variable (the reality of using educational technology) on (the level of quality of performance of educational counselors in secondary schools in Karak governorate from their point of view).

3. RESULTS

3.1. Results related to the first question, which states: What is educational technology in light of the Corona crisis by educational counselors in secondary schools in the Karak Governorate?

Table 3

Arithmetic averages and deviations of educational technology in light of the Corona crisis from educational counselors in secondary schools.

No	Paragraph text	Mean ranks	Standard deviation	Ranking	degree of use
1	The school facilitates the information provided to learners through educational technology.	3.92	0.92	5	High
2	The school employs educational technology to receive and deliver assignments.	3.79	0.95	9	High
3	The school employs educational technology to complete the administrative procedures (schedules, results, announcements).	3.54	1.02	15th	medium
4	The school keeps pace with scientific developments related to educational technology.	3.69	0.99	14	High
5	The school provides training programs for counselors on the use of educational technology and its applications.	3.72	0.97	12	High
6	The school is adopting e-learning in light of the Corona pandemic.	3.51	1.01	17	medium
7	The school provides rooms that are technically qualified to use educational technology.	3.26	1.07	23	medium
8	The school administration is facilitating the procedures for displaying the material electronically in light of the Corona pandemic.	2.98	1.31	28	medium
9	The school takes into account individual differences between learners in presenting lessons and delivering educational tasks electronically.	3.11	1.09	26	medium
10	The school offers electronic programs and modern services that keep pace with the technological requirements of the era.	3.38	1.05	22	medium
11	The size of the responsibilities and the number of courses for the educational counselor in light of the "Covid 19" pandemic negatively affects the course of the lectures.	3.47	1.02	19	medium
12	E-learning programs and platforms are used effectively in teaching.	3.99	0.92	3	High
13	The school implements the distance education system	4.03	0.88	1	High

	through synchronous technological educational platforms.				
14	Educational technology promotes interactive and diverse teaching methods.	3.91	0.99	6	High
15th	Educational technology enables the educational counselor to analyze the study materials to evaluate them.	3.82	0.89	8	High
16	Instructional technology provides feedback to improve the teaching and learning process.	4.01	0.93	2	High
17	Educational technology provides the opportunity for students who are unable to reach school to complete their education.	3.42	1.09	20	medium
18	The school continuously provides instructions and instructions related to the courses electronically by the educational advisor.	3.90	1.01	7	High
19	The school participates in educational conferences and workshops electronically in light of the Corona pandemic.	3.53	1.00	16	medium
20	The educational technology of the educational counselor and the students develops the spirit of competition with the aim of advancement.	3.48	1.06	18	medium
21	The counselor uses students in interactive activities that differ from traditional teaching methods.	3.41	1.08	21	medium
22	The mentor employs different models of the digital age media to effectively convey the quality of performance to the students.	3.70	0.99	13	High
23	The "Covid 19" pandemic shows a noticeable discrepancy in the use of methodologies and methods in teaching and assessment among educational counselors.	3.26	1.09	24	medium
24	The "Covid 19" pandemic shows a noticeable disparity in the use of training tools in education and assessment among educational counselors.	3.17	1.11	25	medium
25	Students are constantly evaluated according to clear criteria.	3.09	1.12	27	medium
26	Students' financial affairs and certificates are monitored electronically.	3.73	0.97	11	High
27	The school administration is contributing in light of the Corona pandemic to help reduce the recurring problems of technology and the Internet for the teachers.	3.96	0.94	4	High
28	The school administration employs counseling to investigate the educational needs of students through the use of educational technology to raise the level of their achievement.	3.77	0.99	10	High
1-28	overall average	3.59	0.54	-	medium

It appears from Table (3) that the general average and reality of using educational technology in light of the Corona crisis from educational counselors in secondary schools in Karak governorate reached (3.59), and this means that the reality of using educational technology in light of the Corona crisis from educational counselors in secondary schools in the governorate Karak is medium. Table (3) shows that the paragraph (the school implements the distance education system through simultaneous educational technology platforms) had the highest estimate, and its arithmetic average value was (4.03) and the lowest estimate was for the paragraph (the school administration facilitates

the procedures for presenting the material comprehensively and electronically in light of Corona pandemic) and its mean value was (2.98). The results indicated that educational technology in light of the Corona crisis of educational counselors to a moderate degree. The reason for this may be attributed to the growing concerns about the emerging coronavirus (COVID-19), as many education leaders are making the difficult decision to close schools, to help in the transition to distance learning, as distance learning has become an urgent matter by the circumstances the world is going through. I agree in general and Jordan in particular, although Jordan is at the forefront of the Arab countries that have adopted the introduction of information and communication technology in its educational system, and the Ministry of Higher Education has implemented many projects and initiatives to implement learning to develop and improve the teaching and learning processes.

The result is due to the importance of the availability of modern computers and internet communication lines in secondary schools, and keeping pace with technological developments in improving the educational process. The teaching process and posters, and that everyone has a phone connected to the Internet, in turn, led to saving time, effort, and cost, and information technology helps to communicate through social networking sites (Facebook, Twitter), electronic forums, and YouTube sites to access educational films. The educational process These programs are among the basic programs that the educational counselor must master, to be able to benefit from them in writing exam questions, preparing summaries and lessons, and preparing presentations for some lessons.

The result of this study met with what was stated in the study (Merc, 2015), whose results indicated that the level of teachers' employment of educational technology from their point of view was average, and the results of this study met with the results of the study (Oluyemisi, 2015), whose results indicated that there is a shortage in technological devices and that teachers' educational practice was not at a satisfactory level. The result of this study also met with what was stated in the study (Abu Yahya, 2018), whose results indicated that the degree of these teachers' use of supportive technology in education was medium, and the level of their attitudes was average and the results of this study matched what stated in the study (Al-Janabi, 2017), which concluded that middle school teachers' use of educational technology from the point of view of their principal was average, and the results of this study agreed With the findings of a study (Abu Rabie, 2015), which concluded that the level of teachers' employment of educational technology from their point of view was average.

3.2. Results related to the second question, which states: What is the quality level of educational counselors' performance in secondary schools in Karak Governorate from their point of view?

Table (4) shows that the general average level of quality of educational counselors' performance in secondary schools in Karak governorate from their point of view was (4.00), which means that the quality level of educational counselors' performance from their point of view is high. It was also found that the paragraph (the school administration provides educational counselors with training programs in educational technology) had the highest estimate, the arithmetic average value was (4.20) and the lowest estimate was for the paragraph (the electronic evaluation of students' performance develops the value of honesty and transparency in education for the educational advisor in light of the Corona pandemic) and its mean value was (3.68).

The results indicated that the quality level of educational counselors' performance from their point of view was highly appreciated, and this may be attributed to the keenness of each educational counselor to exert his maximum energy when performing the roles assigned to him, thus diversifying his teaching methods in light of the "Covid 19" pandemic, for example, he uses the method of

dialogue. Discussion and other methods, and the reason for the rise may be because the study sample consisted of educational counselors, and that every educational advisor strives to apply modern methods in education and do his utmost in applying the latest findings of science, which is at the core of the work of educational advisors, and the emphasis of every advisor. An educator, provided that he presents a general overview of the course that he presents to the students before starting teaching so that each student has a prior mental picture of the concepts that the course will touch on. Which focuses on raising students' motivation to learn, their positive interaction with the teacher, developing their skills and abilities, informing them of developments in the external environment, and leading work methods to reach a high degree of effectiveness as they constitute the most important task. income from the educational system.

Table 4

Arithmetic averages and deviations What is the quality level of educational counselors' performance in secondary schools in Karak Governorate from their point of view?

No	Paragraph text	Mean ranks	standard deviation	ranking	degree of use
31	The school administration provides educational counselors with training programs in educational technology.	4.20	.820	1	high
42	Educational technology contributes to improving educational outcomes, which is reflected in the quality of its performance.	4.16	.790	2	high
30	The "Covid 19" pandemic increases negative pressures on teachers' mental health, which negatively affects their performance.	4.14	.840	3	high
41	Educational technology raises the pace of professional readiness of the educational advisor to plan lectures.	4.13	.780	4	high
32	Educational technology ensures the continuity of interaction between the parties to the educational process, which enhances the level of performance for both parties.	4.12	.890	5	high
33	The educational advisor employs modern assessment methods for e-learning to measure all aspects of the educational process.	4.11	.850	6	high
34	The educational counselor is facing difficulty in evaluating students' performance and technical skills in light of the "Covid 19" pandemic.	4.07	.860	7	high
29	The "Covid 19" pandemic contributes to increasing teachers' motivation to develop their performance in e-learning and distance learning.	4.04	.960	8	high
39	The evolution of the mentor's professional performance in light of the "Covid 19" pandemic to gain technical expertise.	4.03	.810	9	high
40	Educational technology enables learners to employ the scientific method of thinking to solve the problems they face in aspects of their lives.	3.93	.780	10	high
36	The educational counselor stimulates students' critical thinking skills using educational technology strategies.	3.86	.940	11	high
38	The educational advisor is facing difficulty in evaluating students' performance in field courses due to the	3.78	.830	12	high

	closures in light of the Corona pandemic.				
35	The processes, measurement tools, and performance indicators are effective, clear, and transparent.	3.70	.950	13	high
37	The electronic assessment of student's performance increases the value of honesty and transparency in education for the educational counselor in light of the Corona pandemic.	3.68	.870	14	high
	overall average	4.00	0.48	-	high

The results related to the third question, which states: Are there statistically significant differences at the significance level (α≤0.05) towards the reality of using educational technology from the point of view of educational counselors due to the variables (sex, educational qualification, and experience)?

Table 5

Univariate analysis of differences in educational technology from the point of view of educational counselors due to the variables (gender, educational qualification, and experience).

Contrast source	sum of squares	degrees of freedom	mean squares	F value	Significance level
sex	3.48	1	3.48	8.79*	Significance
Qualification	2.26	2	1.13	2.81	Significance
Experience	6.63	2	3.31	5.83*	Significance

* Statistically significant at the level of significance (α ≤ 0.05)

It is evident from Table (5) that:

1. There are statistically significant differences in educational technology from the point of view of educational counselors due to gender, and the differences were in favor of females, as the average response of females was (3.67), and the average response of males was (3.51). This is due to the psychological nature of females, as they are more disciplined than males in attending lectures and training workshops and more committed to implementing laws, and this may also be due to social factors and more attention and concern for job stability and avoidance as much as possible from work conflicts, as well as females More flexibility in dealing with technological devices.

2. There are no statistically significant differences at the significance level (α≤0.05) in the reality of using educational technology from the point of view of educational counselors due to the educational qualification variable. This may be attributed to the keenness of the Ministry of Education to develop the performance of educational counselors in secondary schools in the Karak governorate by providing them with many courses, including e-learning, and this may improve the use of educational technology in schools.

3. There are statistically significant differences at the significance level (α≤0.05) in the reality of using educational technology from the educational counselors' point of view due to the variable of experience. To find out if the differences were statistically significant, dimensional comparisons were made satisfactorily, and Table (6) shows the results of that.

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Table 6

The results of Shaveh's comparisons of the impact of experience on educational technology from the point of view of educational counselors.

Middle 1	Middle 2	The difference between the two means	Indication level
less than 5 years	from 5 - 10	-0.01	.980
	more than 10	.240	.030
from 5 - 10	more than 10	.260	.010

The differences were between experienced counselors (5-10) and experienced counselors (more than 10) and in favor of experienced counselors (5-10), and they were between experienced counselors (less than 5 years).) and among educational counselors with experience (more than 10) and educational counselors with experience (less than 5 years). In the sense that the more the educational counselor's experience increases, the more his use of the basic skills of educational technology increases. The experience increases the educational counselors' awareness of the importance of using these skills, which encourages the Ministry of Higher Education to participate in the free courses it offers to educational counselors without looking at their experiences in driving the computer, such as a course (ICDL) and the Education for the Future (Intel) course, as many schools require these courses to be upgraded to a higher academic rank. Hence, we can say that it is not enough for the educational counselor to be a practitioner of educational technology programs and applications only, he must possess the necessary skills and competencies to be able to employ these programs and applications for teaching purposes.

The results related to the fourth question, which states: Are there statistically significant differences at the significance level ($\alpha \leq 0.05$) towards the quality level of educational counselors' performance in secondary schools in Karak governorate due to the variables (gender, educational qualification, and experience)?

Table 7

Univariate analysis of the differences in the quality level of educational counselors' performance in secondary schools in Karak governorate due to the variables (gender, educational qualification, and experience).

Contrast source	sum of squares	degrees of freedom	mean squares	F value	Indication level
sex	0.30	1	.300	0.84	Not significant
Qualification	2.36	2	1.18	2.44	Not significant
Experience	5.01	2	2.50	5.28	Significant

* Statistically significant at the level of significance ($\alpha \leq 0.05$)

It is evident from Table (7) that:

1. There are no statistically significant differences in the level of quality of performance of educational counselors in secondary schools in Karak Governorate from their point of view due to gender. This may be because the tasks performed by the educational advisor are the same for males and females, such as interaction with students, and community service, as they aspire to improve their academic achievement regardless of gender and are subject to the same regulations and laws, and many of the Ministry's keenness to spread the idea of teamwork among educational advisors.

2. There are no statistically significant differences at the significance level ($\alpha \leq 0.05$) in the quality level of educational counselors' performance in secondary schools in Karak Governorate from their point of view due to the educational qualification variable.

3. There are statistically significant differences at the significance level ($\alpha \leq 0.05$) in the quality level of educational counselors' performance in secondary schools in Karak Governorate from their point of view due to the variable of experience. To find out if the differences were statistically significant, dimensional comparisons were made in a Shafia manner. Table (8) shows the results of it.

It is evident from Table (8) that the differences in all areas of educational counselors' performance in secondary schools in Karak governorate were between experienced counselors (less than 5 years) and experienced counselors (more than 10) and in favor of experienced counselors (more than 10). This result may be attributed to the fact that educational counselors are at the beginning of their appointment and are therefore active in their job performance until they prove their presence and often need to involve them in training programs to enhance their ability to academic achievement by employing knowledge and informing them of everything new in their academic work.

Table 8

Results of complete comparisons of the impact of experience on the level of quality of performance of educational counselors in secondary schools in Karak Governorate from their point of view.

middle 1	Middle 2	The difference between the two means	Indication level
from 5 - 10	more than 10	.180	.250
less than 5 years	from 5 - 10	.150	.280
	more than 10	.300	.000
from 5 - 10	more than 10	.150	.210

The results related to the fifth question, which states: Is there a statistically significant relationship at the significance level ($\alpha \leq 0.05$) between the degree of secondary school practice of the reality of using educational technology and the quality of the performance of educational counselors in secondary schools in Karak Governorate from their point of view?

To answer the question, the results of the analysis of variance were used for the regression between the performance of the study sample to the degree of secondary school practice of the reality of using educational technology and the quality level of performance of educational counselors in secondary schools in Karak governorate from their point of view, and Table (9) shows the results of that.

Table 9

The results of simple regression analysis

independent variable	B	standard error	Beta	Calculated t value	t. significance level
The reality of the use of educational technology	0.741	0.054	0.653	13.67*	0.000

* Statistically significant at the level of significance ($\alpha \leq 0.05$).

The statistical data in Table (9) indicate that there is a statistically significant effect of the variable (the reality of the use of educational technology), on the variable (the level of quality of performance of educational counselors in secondary schools in Karak governorate from their point of view), based

on that the value of (t) calculated amounting to (13.67), and the significance level (α≤0.05), which is statistically significant at the significance level (α≤0.05).

4. CONCLUSION

The result of this study is explained by the fact that the use of educational technology in secondary schools is one of the catalytic influences on improving the performance of the educational counselor, as the use of educational technology contributes to the rule of interaction and dialogue between individuals, the presence of cooperation and harmony between them and the administration, and the opportunity for growth and development and the achievement of individual ambitions, and facilitating Methods and methods of work, to ensure the utilization of the potential energies and capabilities of educational counselors. This result also explains that educational counselors need to find a consensus about the vision and mission of the organization, and the values and objectives it seeks to achieve. When explaining the school's vision and mission to the educational advisor, they will undoubtedly feel that they have the ability to act freely in their work instead of waiting for orders and directions.

This indicates that employing the use of educational technology in the form of controls, standards, and trends drives educational counselors toward achieving their goals and reaching a high degree of performance, as knowledge supports the establishment of good social relations with others and directs it toward influencing them and motivating them to achieve its goals and the organization's goals. The educational counselor starts with him searching for and discovering facts, and the logical methods in analysis, deduction, and problem solving, which helps to achieve his goals at the organizational level.

5. RECOMMENDATIONS

In light of the study results, the researchers recommend the following:

1. Equipping the resource rooms, in a way that is compatible with the means used, especially the computer, the Internet, and its software.
2. Urging educational counselors to employ educational technology in the teaching process by providing financial and moral incentives.
3. The Ministry of Education prepares a comprehensive program that guarantees the opportunity for educational counselors and others to use the computer and the Internet inside schools to the maximum extent possible and on an ongoing basis.
4. The Ministry of Education adopts providing educational counselors with mechanisms, tools, and concepts of educational technology through holding training courses, workshops, and specialized seminars to overcome the difficulties and obstacles of their use.
5. Training educational counselors to drive a computer is not sufficient, but rather it must go beyond that to involve educational counselors in specialized courses in employing educational technology and using it for teaching purposes.
6. Conducting a study similar to this study that uses observation to identify the extent to which the computer, the Internet, and other teaching aids are used within the lectures.

REFERENCES

Abdallah Altarawneh, A. M., & Awwad Alomoush, R. A. (2022). The reality of E-counseling services in the light of Digital learning from the point of view of Teachers in Jordan. *Education and Information Technologies*, *27*(9), 12773-12792. https://link.springer.com/article/10.1007/s10639-022-11102-8

Abu Rabie, I. (2015). The level of awareness of the principals of private primary schools of the importance of educational technology and its relationship to the level of teachers' employment of this technology

Al-Majali, S. (2023). Educational technology and quality performance during the (COVID-19) pandemic. *Global Journal of Information Technology: Emerging Technologies*. *13*(2), 113-133.

from the point of view of teachers in the capital governorate of Amman. (Unpublished Master's Thesis), College of Educational Sciences, Middle East University, Amman: Jordan. https://meu.edu.jo/libraryTheses/58a03c3f154f7_1.pdf

Abu Shakdim, S. (2020). The effectiveness of e-learning in light of the spread of the Coronavirus from the point of view of teachers at Palestine Technical University (Khadoori). *Arab Journal of Scientific Publishing*, *21*, 366-389. https://www.ajsp.net/research

Abu Yahya, F. (2018). Teachers' use of assistive technology in teaching students with learning difficulties and its relationship to their attitudes in Jordan (unpublished master's thesis), College of Educational and Psychological Sciences, Amman Arab University, Jordan. https://www.aau.edu.jo/sites/default/files

Aini, H., & Mudjiran, M. (2020). Cybercounseling as one of the skills in the guidance and counseling service in the 21st century. *Southeast Asian Journal of Technology and Science, 1*(1), 17–20. https://doi.org/10.29210/81058000

Al-Anazi M., & Saadeh, J. (2018). The degree of using modern educational technologies in schools in the State of Kuwait and the difficulties of using them in the teaching process from the point of view of Arabic language teachers in the light of contemporary educational trends, Jordan Association for Educational Sciences. *Jordanian Educational Journal, 3*(2), 183-211. https://digitalcommons.aaru.edu.jo/cgi/viewcontent.cgi?article=1064&context=jaes

Al-Anazi, T. M. K. (2018). The Degree of Using Educational Techniques in Teaching Islamic Education to the Intermediate Stage from the Point of View of Teachers in the State of Kuwait, (Unpublished Master's Thesis), Al al-Bayt University, Jordan. https://www.abhathna.com/?q=node/562809

Al-Aqili, M. M. (2013). The degree of employment of information technology in school management from the point of view of school principals and teachers. (Unpublished Master's Thesis), Yarmouk University, Irbid, Jordan. http://thesis.mandumah.com/Record/222452

Al-Harbi, M. (2016). Faculty attitudes toward and motivation for Virtual Learning Environments (VLE) for language studies: A cross-national study in Saudi Arabian universities. *Journal of Psychology and Behavioral Science*, *4*(2), 100-114. http://jpbsnet.com/journals/jpbs/Vol_4_No_2_December_2016/9.pdf

Al-Janabi, S. (2017). Middle school teachers in the capital Baghdad's use of educational technology in chemistry from the point of view of their principals. (Unpublished Master's Thesis), College of Educational Sciences, Middle East University, Amman, Jordan. https://meu.edu.jo/libraryTheses/5a2cd6776eb22_1.pdf

Al-Sabatin, A. (2019). The degree to which graduate students possess basic skills in practical subjects in educational technology specialization in Jordanian universities from the viewpoint of faculty members. (Unpublished Master's Thesis), University of the Middle East, Amman, Jordan. https://meu.edu.jo/libraryTheses.

Aluede, O., & Adubale, A. A. (2020). School-Based Counsellors' Role as Perceived by Nigerian Counsellors. *Journal of School-Based Counseling Policy and Evaluation, 2*(1), 56–62. https://doi.org/10.25774/ppbt-6k45

Basilaia, G., &Kvavadze, D. (2020). Transition to Online Education in Schools during a SARS-CoV-2 Coronavirus (COVID-19) Pandemic in Georgia. *Pedagogical Research*, 5(4). https://eric.ed.gov/?id=EJ1263561

Brown, H. (2014). Teachers Attitudes and Confidence in Technology Integration, (unpublished master thesis), Marshall University, USA, https://mds.marshall.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1898&context=etd

Crandall, K. S., North, M., & Crandall, K. (2020). Digitally Transforming THE Professional School Counselor. *Issues in Information Systems, 21*(1), 1–11. https://doi.org/10.48009/1_iis_2020_1-11

Dores, A. R., Geraldo, A., Carvalho, I. P., & Barbosa, F. (2020). The use of new digital information and communication technologies in psychological counseling during the COVID-19 pandemic. *International journal of environmental research and public health, 17*(20), 7663. https://doi.org/10.3390/ijerph17207663

Emmanuel, A. (2020). Exploring the Impact of the Counseling Service on Student Teachers' Academic Performance: The Case of E.P. College of Education, Bimbilla. International *Journal of Scientific Research and Management, 8*(2), 1498–1536. https://doi.org/10.18535/ijsrm/v8i07.el05

Al-Majali, S. (2023). Educational technology and quality performance during the (COVID-19) pandemic. *Global Journal of Information Technology: Emerging Technologies*. *13*(2), 113-133.

Galvis, Á. H., & Carvajal, D. (2022). Learning from success stories when using eLearning and learning modalities in higher education: A meta-analysis and lessons towards digital educational transformation. *International Journal of Educational Technology in Higher Education*, *19*(1), 1-31. https://educationaltechnologyjournal.springeropen.com/articles/10.1186/s41239-022-00325-x

Girsang, S., & Saragih, E. (2020). Student and Teacher Perception Analysis on Guidance and Counseling at Sma Negeri 10 Medan. *Journal Handayani Pgsd Fip Unimed, 11*(1), 15–24. https://doi.org/10.24114/jh.v11i1.18655

Jack, C., & Higgins, S. (2019). Embedding educational technologies in early years education. *Research in learning technology*, *27*. https://journal.alt.ac.uk/index.php/rlt/article/view/2033

Javaid, A, Qadri, M, Suman, R. (2022). Understanding the role of digital technologies in education: A review. *Sustainable Operations and Computers, 3(*1), 275-285, https://www.sciencedirect.com/science/article/pii/S2666412722000137

König, J., Jäger-Biela, D. J., & Glutsch, N. (2020). Adapting to online teaching during COVID-19 school closure: teacher education and teacher competence effects among early career teachers in Germany. *European Journal of Teacher Education, 43*(4), 608–622. https://doi.org/10.1080/02619768.2020.1 809650

Košir, K., Dugonik, Š., Huskić, A., Gračner, J., Kokol, Z., & Krajnc, Ž. (2022). Predictors of perceived teachers' and school counsellors' work stress in the transition period of online education in schools during the COVID-19 pandemic. *Educational Studies*, *48*(6), 844-848. https://www.tandfonline.com/doi/abs/10.1080/03055698.2020.1833840

Mahmoud, A. R. (2020). Artificial intelligence applications: an introduction to developing education in light of the challenges of the coronavirus (COVID-19) pandemic. *International Journal of Research in Educational Sciences, 3*(4), 171-224. http://search.shamaa.org/FullRecord?ID=267527

Merc, A. (2015). Using Technology in the Classroom: A Study with Turkish Pre-service EFL Teachers, *Turkish online journal of Educational Technology (TOJET), 14(*2), 229-240. http://www.tojet.net/articles/v14i2/14225.pdf

Nuankaew, W., & Nuankaew, P. (2021). Educational Engineering for Models of Academic Success in Thai Universities During the COVID-19 Pandemic: Learning Strategies for Lifelong Learning. *International Journal of Engineering Pedagogy (iJEP)*, *11*(4), 96–114. https://doi.org/10.3991/ijep.v11i4.20691

Nwoobi, A., Ngozi, U., Rufina, N., & Ogbonnaya, K. (2016). Implementation of information communication technology in the teaching/learning process for sustainable development of adults in West Africa sub-Sahara region. *Journal of Education and Practice, 7*(21), 14-19. https://files.eric.ed.gov/fulltext/EJ1109414.pdf

Oluyemisi, A. (2015). ICT and Effective School Management Administrators Perspective. Proceedings of The World Congress on Engineering London UK. WCE. http://www.iaeng.org/publication/WCE2015/WCE2015_pp249-252.pdf

Oueida, S., Awad, P., & Mattar, C. (2023). Augmented Reality Awareness and Latest Applications in Education: A Review. *International Journal of Emerging Technologies in Learning (iJET)*, *18*(13), pp. 21–44. https://doi.org/10.3991/ijet.v18i13.39021

Oyelere, S. S., Bouali, N., Kaliisa, R., Obaido, G., Yunusa, A. A., & Jimoh, E. R. (2020). Exploring the trends of educational virtual reality games: a systematic review of empirical studies. *Smart Learning Environments*, *7*, 1-22. https://link.springer.com/article/10.1186/s40561-020-00142-7

Rodway, P., & Schepman, A. (2023). The impact of adopting AI educational technologies on projected course satisfaction in university students. *Computers and Education: Artificial Intelligence*, 100150. https://www.sciencedirect.com/science/article/pii/S2666920X23000292

Salama, A. H. (2018). *Multimedia in the media and education*. Dar Al-Bidaa Publishing and Distribution.

Shaaban, A. K. & Al-Abedy, A. (2009). Leadership styles and their role in evaluating the performance of faculty members (applied study on a sample of faculties of the University of Kufa), Al-Qadisiyah. *Journal of Administrative and Economic Sciences, 11*(2), 26-41. http://search.mandumah.com/

Sinedy, S. R. (2015). The technical and educational Competencies of the faculty of Education at Sultan, Qaboos University and the extent of their practice. (Unpublished master thesis) Yarmouk University, Jordan.

Al-Majali, S. (2023). Educational technology and quality performance during the (COVID-19) pandemic. *Global Journal of Information Technology: Emerging Technologies*. *13*(2), 113-133.

Singh, R., Javaid, M., Kataria, R., Tyagi, M., Haleem, A., Suman R. (2021). Significant applications of virtual reality for COVID-19 Pandemic Diabetes & Metabolic Syndrome. *Clinical Research & Reviews, 14* (4), 661-664, https://www.sciencedirect.com/science/article/pii/S1871402120301302

UNESCO (2020). "With One in Five Learners Kept out of School, UNESCO Mobilizes Education Ministers to Face the COVID-19 Crisis." UNESCO.Org, www.unesco.org/en/articles/one-five-learners-kept-out-school-unesco-mobilizes-education-ministers-face-covid-19-crisis. Accessed 21 Nov. 2023.

Whalley, B., France, D., Park, J., Mauchline, A., & Welsh, K. (2021). Towards flexible personalized learning and the future educational system in the fourth industrial revolution in the wake of Covid-19. *Higher Education Pedagogies*, *6*(1), 79-99. https://www.tandfonline.com/doi/abs/10.1080/23752696.2021.1883458

Yulia, H. (2020). Online learning to prevent the spread of pandemic coronavirus in Indonesia. *ETERNAL (English Teaching Journal)*, *11*(1). http://journal.upgris.ac.id/index.php/eternal/article/view/6068

Zhang, Y. (2022). Developing EFL Teachers' Technological Pedagogical Knowledge Through Practices in Virtual Platform. *Frontiers in Psychology*, *13*, 916060. https://www.frontiersin.org/articles/10.3389/fpsyg.2022.916060/full