

# School Administration and Its Role in Spreading the Culture of using Information Technology in Secondary Schools in the Al-Karak Education Directorate from the Teachers' Point of View

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## Abstract

The current study aimed to investigate the impact of school administration and its role in spreading the culture of using information technology in secondary schools in the al-Karak Education Directorate from the teachers' point of view themselves. In the vicinity of the school, the school principal, information and communication technology, provision of technical support and maintenance, provision of appropriate infrastructure, and encouragement of teachers to use information and communication technology, its validity and reliability have been confirmed. The study sample consisted of (1000) male and female teachers. The study revealed the following results: The role of the school administration in spreading the use of information and communication technology was average at the total level and in all fields except for the domain of the school principal and information and communication technology, which was high, and the results showed the presence of significant differences. Statistics attributable to the gender variable at the total level and at the level of each domain, with the exception of the field of providing technical support and maintenance

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## INTRODUCTION

The current era is witnessing a revolution in the field of information and communication technology, and this revolution has moved very quickly, and more modern technological means have appeared, which have transformed the world into a small village in which members of society from different countries interact with each other easily. And entered the use of computers in all areas of human life, including economics, medicine, engineering, education and other fields

Information and communications technology is the confluence of computer and telecommunications technology and microelectronics to process information, and uses a computer's ability to process and store information to enhance communications media for the benefit of the user. Examples of information technology are networks, computer standards or word processors, e-mail services and stored numbers. Call transfers in telephone devices and instant databases (Murad, 2002).

Information and communication technology has contributed to changing the features of the educational system with its various elements. This change included the role played by the teacher in the classroom. It changed from a mere transmitter of information to a guide, mentor, coach, inspiring and collaborating with students. He became the constructive leader, and technology also contributed to changing the role of the student. From a mere recipient of information and knowledge to the role of the investigator, researcher, discoverer and sometimes expert.

The age of information and knowledge has led to a change in educational practices and beliefs that were prevalent in the past, and on this basis, concerted efforts to reform and develop education by making maximum use of the capabilities of modern information and communication technology and its applications in education, especially in light of the global trend towards knowledge economies that It depends mainly on modern technologies to use knowledge to raise the level of social welfare and the use of various resources is the best investment, and information and communication technology has become a means of survival and an indispensable tool in an open world that counts on competitiveness as a criterion for progress and progress, so the important role of the educational system as the engine To bring about drastic changes and a real revolution in the way of life and thinking (Sabella, Poynton & Isaacs, 2010).

Bryson, Frances, & Kaifeng (2010) emphasized that planning and its related elements have become practiced in all organizations, and proposes four new directions for practice, including information management as part of management strategy, as well as a special focus on How to develop a strategy for the development and use of information in these organizations, and to understand how ICT integrates with planning and management elements to enhance organizational capabilities and improve the performance of organizations in the long term. Adeyemi and Olaleye (2010) explained that ICT applications have positive effects on management effectiveness. The most important of which is that it enhances the level of performance and quality.

Al-Rashidi (2002) emphasized that the school has no choice in the face of technological changes, including the computer, which imposed itself on educational work in all its fields, including school administration. This was confirmed by Devi (2003) by saying that the computer is an aid in managing the educational process, providing the necessary information for planning, improving performance efficiency, rationalizing decisions, solving problems, following up on personnel affairs, as well as holding exams, admission and registration procedures and other auxiliary and essential activities. in the educational process.

In this context, the Ministry of Education's interest in the necessity of employing information technology in the field of education, and benefiting from it in the development of educational practices, and the need for continuous modernization and development of the educational process to keep pace with the latest administrative educational systems and the use of information and communication technologies to raise the educational, research and administrative capacity of the learning system, and use it in managing work within The educational institution and the integration of data and information between the various departments, and the use of that data in directing the policy and procedures of the work of the educational institution towards achieving its goals and providing the necessary flexibility to respond to the successive changes, is indispensable in the management of educational institutions.

#### **THE STUDY PROBLEM:**

Most countries of the world are racing to work on reviewing and developing their educational systems, especially schools, especially secondary ones, with the role they play to prepare students to interact with the information society, despite the importance and necessity of the Ministry of Education in the Hashemite Kingdom of Jordan responding to these challenges through its role in qualifying teachers and school administrations with competencies. And the skills necessary to use computers in their work, but there is still a shortcoming of some school administrations in performing the role entrusted to them to spread the culture of using information and communication technology among all school affiliates, including teachers, administrators and students.

The advent of technology and its wide spread such as multimedia and the global information network led to significant changes in all aspects of the educational system, philosophy, objectives, curricula, methods and management, so educational systems have to prepare themselves to adapt to these modern technologies and how to use them, and it has become necessary to invest these modern technologies In the educational system because of its many benefits that help in developing the educational process, upgrading it, and shifting from traditional management to effective modern management.

Information and communication technology is one of the important pillars that enable educational institutions to continuously develop and update their performance to keep pace with global developments, and thus have the ability to develop their operations and outputs. Therefore, the introduction of technology and its use in the education system has become an important and essential matter, and the educational systems have taken care of graduating students who are able to use this technology, and the information challenges in their various dimensions have formed the basis for many calls for the need to reform educational systems as a result of the inability of the current systems to meet the challenges created by information technology. and communications.

The recommendations of the Arab conference held in (2003) at the headquarters of the League of Arab States in Cairo emphasized the importance of rapid and steady entry into the information age. In the era of the knowledge explosion and the technological revolution (Ministry of Education, 2003), the current study comes to reveal the role of school administrations in spreading the culture of using information and communication technology in Jordanian secondary schools from the point of view of teachers.

#### **STUDY OBJECTIVE AND QUESTIONS:**

The current study aimed to explain the school administration and its role in spreading the culture of using information technology in secondary schools in the Karak Education Directorate from the teachers' point of view, by answering the following questions:

1. What is the school administration and its role in spreading the culture of using information technology in secondary schools in Karak from the point of view of teachers?
2. Are there statistically significant differences at the level ( $\alpha \leq 0.05$ ) in school administration and its role in spreading the culture of using information technology in secondary schools in Karak due to the gender variable of the teacher?

#### **THE IMPORTANCE OF STUDYING:**

The importance of this study comes from being one of the rare studies that dealt with the topic of the role of school administration in the dissemination of the use of information technology, and from the importance of the topic that it dealt with in research and analysis, and from the nature and importance of the studied category. It is hoped that decision makers in the Ministry of Education and schools will benefit from the results of this study.

This study may also benefit researchers in the field of educational and school administration, and educational technology, in terms of giving attention to this topic.

## TERMINOLOGY OF STUDY:

The current study dealt with a number of terms, and the following is a definition for each of them:

**SCHOOL ADMINISTRATION:** Mustafa (2002, 38) defines it as: It is a group of functional operations practiced, for the purpose of carrying out school tasks by others, by planning, organizing, coordinating, controlling and evaluating their efforts, and performing this function by influencing the behavior of individuals and achieving school goals.

**Information and Communication Technology:** It is the set of different technologies, tools, means or systems that are employed to process the content or content that is intended to be communicated through the process of mass, personal, organizational or collective communication, and transfer it from one place to another place and exchange it in various fields (Makawi and Suleiman, 2001).

## STUDY LIMITS AND LIMITATIONS:

The current study was limited to teachers in secondary schools in al-Karak, who were enrolled in their work during the first semester of the 2022/2021 school year.

The generalization of the results of this study is determined by the validity and reliability of the questionnaire. The results of the study can only be generalized to the community from which the sample will be drawn and similar communities. The generalization of the results is also determined in the light of the respondents' honesty, objectivity and honesty when answering the paragraphs of the tool used in the current study.

## THEORETICAL FRAMEWORK AND PREVIOUS STUDIES

The computer in school administration is one of the most important areas of computer use in education, given the services it provides to administrators, as there are a large number of various administrative tasks that it can provide with ease and ease, such as those related to teacher affairs, student services, or examination affairs. and evaluation, or records services (Al-Lami, 2008), and enabling teachers to invest in information and communication technology and raise their efficiency to develop the educational process was a priority of the educational development process, and the training programs that the educational staff underwent had a clear impact in providing opportunities to benefit from the enormous potential provided by information and communication technology and its educational applications, whether through the novelty of the information it provides, or by means of suspense and the pleasure of learning, or by communicating and interacting with others (Michael & Eckart, 2000).

The tremendous revolution in information and communication technology resulted in innovative means such as: video conferencing, digital conversations, mobile phone, and e-mail (Kupritz & Cowell, 2011). The rapid spread of modern technologies in the field of communications has become an inevitable matter that must be dealt with and kept pace with the speed of its spread. Consequently, these circumstances imposed on the institutions of society in general, and on educational institutions in particular, pressures imposed on them to deal with these means and commit to using them due to the positive effects they achieve on society. and its development.

The development brought about by the technological revolution and the accompanying development in communication technologies and information systems, made information and informatics a primary material for any human activity, which prompted the developed countries to develop strategies and plans for the development of information technology, where all functions and information technologies are studied, and information systems applications are now a vital role in modern administrative, information and educational thought, so this thought and its applications must be familiarized with (Ghoneim and Nada, 2009). Technology plays a major role in increasing administrative effectiveness. The main factors that contribute to the effective application of technology, and in particular the use of computers in educational administration, revolve around school management (2000).

ICT applications have become an important part and an essential component of the educational administrative system of educational institutions, and their use has become an imperative for data processing and information storage in organized ways characterized by speed, accuracy, and ease of use. These applications have contributed to the emergence of many educational and educational developments such as: virtual reality, video Interactive, distance learning and other technologies, and it depends on a group of devices, software, media, and overlapping and integrated teaching systems, such as the use of educational institutions of the Internet and networks and their applications in general, and the subordination of administrative work in these institutions, educational curricula, and teaching methods to a review to keep pace with modern requirements and new technologies.

The school administration works to activate the role of all school affiliates, as the teacher plays an important role in the continuous improvement of the level of his students, and this represents the goal that the educational system seeks, which is one of the main pillars of achieving quality in the educational system, whatever the state of the school, the nature of the curricula, and the quality of technology learning resources, and components of the learning environment, but they remain of little use unless the teacher is able to employ them effectively to achieve educational goals (Hartnell, 2006).

The school administration works on planning the educational process and designing programs that enable the teacher to diagnose students' levels and follow their progress. Consequently, the role played by the teacher has changed to become, in the era of information and communication technology, a planner, facilitator and directive (Zhao & Cziko, 2001).

Hence, it is necessary to work on rehabilitating the teacher is educational, academic and technological to keep pace with the age of technology, and is proficient in the use of technology, to be able to manage the educational process that enables him to reach the desired outputs.

Chimezie (2003) emphasized that to reap the benefits of science and achieve industrial progress, it is necessary to spread computer culture in society in general and in the field of education and those in charge of it in particular. It can also be said that information and communication technology have a significant role in achieving social development in societies, as information has now become a source of power and influence. Social, legislative and political changes are necessary to prepare society and its organizations to accept the use of this technology (UNRISI, 1999).

This requires that the school be concerned with the formation of general skills in thinking, planning, cognitive and psychological adaptation to deal with current changes, mastery of modern languages and technology of obtaining and processing information, efficient investment of time and management of available capabilities; Therefore, the employment of information and communication technology constitutes a qualitative addition to the administrative processes within the school, and it provides a guarantee of greater flow of information and efficiency of achievement, and it is one of the most growing global trends with the aim of achieving greater communication and interaction in the administrative field, and this would create a society on scientific foundations through which it can Keeping pace with the scientific and knowledge development taking place in the world, and this requires the school administration to be able to employ information and communication technology and apply it to achieve the goals (Adeyemi and Olaleye, 2010).

#### **PREVIOUS STUDIES**

Many previous studies have been conducted on the subject of school administration and the use of computers in them in general. As for the subject of the current study, the researcher found out the limitations of these studies, and the following is a presentation of some of these studies:

Nawal (2021) conducted a study that aimed to reveal the role of school administration in activating the use of educational technology tools in public secondary schools in Irbid Governorate from the teachers' point of view. To achieve the objectives of the study, a questionnaire consisting of (30) items was prepared. The study sample consisted of (826) male and female secondary school teachers in the schools of Irbid Governorate. The results of the study showed that the role of the school administration in activating the use of educational technology tools in public secondary schools came at an average level, and the results indicated that there are no differences in the role of the school administration in activating the use of educational technology tools due to the variables of gender and educational qualification, and there are differences due to the variable of experience. The process, for the benefit of those who have experience (10) years or more." Based on the results of the study, the researcher recommends strengthening the role of school administration in activating the use of educational technology tools, by preparing courses and training programs for school principals and teachers.

Al-Rashidi and Al-Shareja (2014) conducted a study aimed at revealing the reality of secondary school principals in the State of Kuwait using information and communication technology in administrative affairs. of information and communication technology in administrative affairs, and the obstacles to using information and communication technology in the Kuwaiti school from the point of view of the school principals, and after verifying its validity and stability, it was distributed to a sample of (27) principals from different regions of the State of Kuwait, and the results showed that the sources of information and communication technology It is available in an average way, and that managers use information and communication technology in an average way, and there were no statistically significant differences due to the variables of gender, educational qualification, experience, and age.

Al-Hassan (2013) conducted a study aimed at identifying the impact of an intensive course in computer applications on the readiness of school principals to use the computer. Information technology consisting of 69 items, and the results showed that a percentage of school principals rated themselves that they were good at using basic computer applications such as text editing and presentation programs, and more than half of the principals had received training in basic computer skills as an introduction to text editing and computer operation. And that 34.4% of them trained themselves or through the help of a friend, while 31.3% did not receive training other than what they received during university studies or in school principals' courses held by universities, and it appeared that the training course in computer culture had a statistically significant effect on Attitudes of managers towards the use of computers.

Al-Harashseh (2013) conducted a study aimed at identifying the degree of computer use in school administration among school principals in Mafraq Governorate from their point of view, and the impact of gender, educational qualification, years of service, and school level on the degree of computer use in school

administration, and the study sample consisted of ( 107) of the principals, and the study concluded that the degree of computer use in school administration holistic and domain (administrative and student) came with a medium degree of practice, and the teacher's field came with a low degree of use, and the results indicated that there were statistically significant differences in the degree of computer use in administration. The study sample from the point of view of the study sample is attributed to gender in the areas of administration, the student and the tool entirely and in favor of females, and the results of the study indicated that there are statistically significant differences in the degree of computer use in school administration from the point of view of the study sample due to the school level variable on the domain of It also showed that there are no statistically significant differences in the degree of computer use in school administration from the point of view of the study sample due to the variables of academic qualification and service cores.

In a study by Chang (2012), the effectiveness of school management, the extent of teachers' technological culture, and the effectiveness of teaching were investigated. A questionnaire was distributed to (1000) teachers who were randomly selected from Taiwan primary schools. The study found results, including that the school principal's technological leadership improves teachers' technological culture and directly encourages them to integrate technology into their teaching.

In the study of Adeyemi and Olaleye (2010), which aimed to demonstrate the impact of information and communication technology applications on the efficiency of secondary school administration in the Nigerian state of Ekiti, the study sample consisted of (160) secondary schools, (652) teachers, and (160) ) as a director and director, and the study concluded to shed light on the most important obstacles that prevent the good activation of ICT applications that contribute to the efficiency and effectiveness of school administration. Among the most important of these obstacles is the lack of financial resources needed to purchase equipment and equipment (hardware and software) necessary for their optimal application, and initial indicators of the type of obstacles that prevent the optimal use of information and communication technology within the school were provided.

Felton (2006) conducted a study on the use of computers by primary school principals, and 400 school principals were randomly selected from the US state of Columbia, including 228 school principals. The results of the study showed that school principals use computers on a daily basis for many administrative and educational needs. The principals who are more knowledgeable about using computers showed a positive trend towards using computers in their work, and they also used the Internet services more in administrative processes, and they were told that the computer had brought about a change in the way in which they did their work in the school, and showed that the training in the use of the computer had a positive impact on their attitudes. Towards its use in their work, and demographic variables had no effect on principals' tendency toward computer use or school principals' efficiency in computer use.

#### **SUMMARY OF PREVIOUS STUDIES AND THE LOCATION OF THE CURRENT STUDY, INCLUDING:**

Based on the foregoing, the apparent deficiency in previous studies on the topic of the role of school administration in spreading the culture of using information and communication technology in general, and in Jordanian schools in particular, is evident. It was also found that most of the previous studies examined the use of computers in schools, such as the study of Al-Rashidi and Al-Sharaijah (2014), the study of Al-Harashah (2013), the study of Felton (Felton, 2006), and other studies dealt with the impact of a course in computer applications on the willingness of managers to use the computer, such as the study of Al-Hassan (2013), and another study examined the effectiveness of school administration in the extent to which the technological culture of teachers improved and the effectiveness of teaching, such as the study of Chang (Chang, 2012). and Olaleye (Adeyemi and Olaleye, 2010) explaining the impact of information and communication technology applications on the efficiency of school administration,

It is noted that some studies have dealt with the subject in theory, while others have dealt with the subject in terms of descriptive survey. The study is on both the theoretical and applied sides, and examined new areas that were not covered by previous studies.

#### **STUDY METHODOLOGY:**

The current study relied on the descriptive approach, as it is the appropriate approach to achieve its objectives.

#### **STUDY POPULATION AND SAMPLE:**

The study population consisted of all teachers working in secondary schools in the directorates of education in Karak for the first semester of the academic year (2022/2021), and an intentional sample of the study population was selected, amounting to (1000) male and female teachers, including (475) male and (525) female teachers, divided into The three districts: Kasbah Al-Karak (290) male and female teachers, Al-Qasr (480) male and female teachers, and Al-Mazar Al-Janobi (230) male and female teachers.

#### **STUDY TOOL:**

To know the role of school administration in spreading the culture of using information and communication technology in Jordanian secondary schools from the teachers' point of view, a questionnaire was developed after reviewing theoretical literature such as the Al-Rashidi and Al-Sharaija study (2014), and the Al-Harhasheh study



(2013), and the questionnaire consisted of two parts: The first: It included personal information of the study sample members. The second: a tool for measuring school administration and its role in spreading the culture of using information and communication technology in Jordanian secondary schools from the point of view of teachers.

**THE QUESTIONNAIRE CONSISTED OF (42) ITEMS, DIVIDED INTO FIVE AREAS:**

**THE FIRST FIELD:** spreading the digital information culture in the school environment, and it has (8) paragraphs.

**THE SECOND FIELD:** the school director and information and communication technology, and it has (9) paragraphs.

**THE THIRD AREA:** Providing technical support and maintenance, and it has (4) paragraphs.

**THE FOURTH AREA:** Providing the appropriate infrastructure, and it has (12) paragraphs.

**THE FIFTH FIELD:** encouraging teachers to use information and communication technology, and it has (9) paragraphs.

For each of the paragraphs, the questionnaire was given five levels according to the five-level Likert scale to choose one of the alternatives according to the following degrees of approval: very large (5), large (4), medium (3), few (2), very few (1). Taking into consideration that the arithmetic mean values that were reached by the study were dealt with to interpret the data as follows:

- Low if the mean range/paragraph is between 1.00-2.33,
- Medium if the average of the domain/clause is greater than 2.34-3.67,
- High if the domain/paragraph average is greater than 3.68 – 5.00.

**VALIDITY OF THE TOOL:**

The validity of the study tool was confirmed by presenting it in its initial form to ten specialists in educational fields in Jordanian universities, to verify the validity of the content of its paragraphs, and to express their observations and opinions about its paragraphs and its consistency with the axes of the tool and the subject of the study, and in the light of their observations, the wording of some paragraphs was modified from Where construction and language, none of its paragraphs were deleted or any new paragraphs added, and the questionnaire was put in its final form.

**TOOL STABILITY:**

To ensure the stability of the tool, it was distributed in its final form to an exploratory sample from the study population and from outside its sample, consisting of (50) male and female teachers from the three directorates of education (Al-Qasr, Karak Kasbah, and the Southern Mazar), and the tool was applied again on the same sample two weeks later, According to the test-retest method, the Pearson Correlation coefficient was calculated, which amounted to (0.87), and the reliability coefficient was calculated using the internal consistency method using Cronbach's Alpha equation, and Table (1) shows the values of the reliability coefficients For each area of study and for the instrument as a whole.

**TABLE (1): THE VALUES OF THE RELIABILITY COEFFICIENTS FOR THE STUDY TOOL DOMAINS BY PEARSON AND CRONBACH'S ALPHA METHODS (INTERNAL CONSISTENCY)**

No.	Field	Pearson correlation coefficient	Cronbach alpha (internal consistency)
1	Spreading the digital information culture in the school setting	0.88	0.80
2	School Principal, ICT	0.85	0.85
3	Provide technical support and maintenance	0.84	0.90
4	Providing the right infrastructure	0.91	0.89
5	Encouraging teachers to use information and communication technology	0.85	0.83
	Total	0.88	

**RESULTS:**

**THE FOLLOWING IS A PRESENTATION OF THE RESULTS OF THE STUDY ACCORDING TO ITS QUESTIONS:**

**FIRST: THE RESULTS RELATED TO THE ANSWER TO THE FIRST QUESTION, WHICH READS:** "School administration and its role in spreading the culture of using information technology in secondary schools in the Karak Education Directorate from the teachers' point of view?"

To answer this question, the arithmetic averages and standard deviations were calculated, and the rank was determined for the level of the school administration's role in spreading the culture of using information and communication technology in Jordanian secondary schools, from the teachers' point of view, for the fields of study combined and for each field separately, and Table (2) shows that.

**TABLE (2): ARITHMETIC AVERAGES, STANDARD DEVIATIONS, AND RANK OF THE DOMAINS OF THE ROLE OF SCHOOL ADMINISTRATION IN SPREADING THE CULTURE OF USING INFORMATION TECHNOLOGY IN SECONDARY SCHOOLS IN KARAK, RANKED IN DESCENDING ORDER.**

No.	Field	Mean	Deviation	Rank	Level
2	School Principal and IT	3.82	0.96	1	High
4	Spreading the digital information culture in the school setting	3.67	0.79	2	Medium
3	Encouraging teachers to use information technology	3.54	1.20	3	Medium
1	Providing the right infrastructure	3.37	0.57	4	Medium
5	Provide technical support and maintenance	2.64	0.79	5	Medium
	Total	3.49	0.62		Medium

It is noted from Table (2) that the role of school administration in spreading the culture of using information technology in secondary schools in Karak, from the teachers' point of view, was average, with the arithmetic mean (3.49) and a standard deviation (0.62), and all areas of the study tool were in the average degree. With the exception of the first field, the arithmetic averages ranged between (3.82 - 2.64), and in the first rank came "the domain of the school principal and information and communication technology" with an arithmetic mean (3.82) and a standard deviation (0.96) with a high degree, and in the second rank came "the field of spreading digital information culture in School circumference" with a mean (3.67) and a standard deviation (0.79) and a medium degree, and in the penultimate rank "the field of providing appropriate infrastructure" with a mean (3.37) and a standard deviation (0.57) and a medium degree, and in the last rank "the field of providing technical support" and maintenance" with an arithmetic mean (2.64) and a standard deviation (0.79) with a medium degree, and this result is attributed to the fact that the role of the school administration in spreading the culture of using information technology in secondary schools in Karak is still below the required level, and it seeks in its attempts to upgrade the The reason for the delay could be due to the heavy burden placed on the school administrations and their employees, which consumes a lot of time and effort, and thus is at the expense of development and transformation towards the use of technology and its employment in the work of the school, and the reason may also be due to the fact that the available infrastructure The schools are modest, and a lot of time has passed since some of them have become unusable, in addition to the lack of maintenance for this structure to keep pace with new uses in the field of technology and communications. The results of this study are consistent with the results of the study of Al-Rashidi and Al-Shareja (2014), and with the study of Al-Harahsheh (2013).

As for the paragraphs of each field, the results were as follows:

#### **1- THE FIELD OF THE SCHOOL PRINCIPAL AND INFORMATION TECHNOLOGY**

Arithmetic averages and standard deviations were calculated and "school administration and its role in spreading the culture of using information and communication technology in secondary schools in Karak were determined, from the teachers' point of view for the paragraphs of the "school principal and information technology" field, and Table (3) shows that

**TABLE (3): ARITHMETIC AVERAGES, STANDARD DEVIATIONS, RANK AND FOR THE LEVEL OF THE SCHOOL PRINCIPAL'S DOMAIN AND INFORMATION TECHNOLOGY ITEMS IN DESCENDING ORDER.**

No.	Field	Mean	Deviation	Rank	Level
18	The school principal believes that training teachers on information technology will have a positive impact on students' achievement	3.94	1.14	1	High
14	The principal himself uses the Power Point presentation software during school meetings	3.91	1.28	2	High
13	The school administration makes use of information technology to help parents of students follow up on their children	3.89	1.18	3	High
20	Manager sends meeting invitations using email	3.85	1.13	4	High
21	The principal facilitates the use of information technology to inform teachers of the experiences of their peers	3.84	1.32	5	High
15	Principal can help teachers to overcome some problems while using information technology in teaching	3.81	1.29	6	High
19	The school principal communicates with the school audience through e-mail	3.79	1.25	7	High
17	The school administration provides the necessary training on information technology within the school	3.75	1.32	8	High
16	The school administration uses information technology to speed up the resolution of problems with stakeholders	3.62	1.26	9	Med
	Total	3.82	0.96		High

It is noted from Table (3) that the role of the school administration in spreading the culture of using information technology in secondary schools in Karak, from the teachers' point of view for the paragraphs of the "school director and information technology" field, was high, with an arithmetic mean (3.82) and a standard deviation (0.96), All paragraphs in this field were high except for paragraph (16) which came at an average level, and the arithmetic averages ranged between (3.94-3.62) and came in the first rank, paragraph (18), which states: "The school principal believes that training teachers on information technology is positively reflected on the achievement of Students", with an arithmetic mean (3.94) and a standard deviation (1.14) and a high degree, and came in the last rank, paragraph (16), which states: "The school administration uses information technology to speed up solving problems with the concerned authorities" with an arithmetic mean (3.62) and a standard deviation (1.26). ) to a medium degree, and the previous result is due to the fact that secondary school principals in Jordan have awareness of the importance of spreading the culture of using information and communication technology in their schools, and therefore they see that training teachers and school staff is of great importance in improving performance. It reflects positively on students and their results, and the principal sets an example for all school members through his practices and his use of information and communication technology in performing the tasks entrusted to him, and through his communication with parents of students and school workers and with the higher administrations in the Directorate of Education, and informs teachers through his communication with other schools on their successes and experiences.

## 2- THE FIELD OF SPREADING DIGITAL INFORMATION CULTURE IN THE SCHOOL SETTING

Arithmetic averages and standard deviations were calculated, and the role of school administration in spreading the culture of using information technology in secondary schools in Karak was determined from the teachers' point of view for each of the paragraphs of this field, and Table (4) shows this.



**TABLE (4): ARITHMETIC AVERAGES, STANDARD DEVIATIONS, AND RANK OF THE PARAGRAPHS LEVEL OF THE FIELD OF DIGITAL INFORMATION CULTURE DISSEMINATION IN THE SCHOOL SETTING, ARRANGED IN DESCENDING ORDER.**

No.	Field	Mean	Deviation	Rank	Level
36	The school administration encourages the use of information technology to enhance scientific research skills in the school	4.26	1.04	1	High
34	The school principal uses electronic communication in order to facilitate the interaction of teachers in their functional community	3.84	1.39	2	High
33	The principal directs teachers to communicate with students electronically	3.75	1.24	3	High
35	The school administration strives to build a developed information society through the use of information and communication technology	3.72	1.55	4	High
32	The school administration constantly arranges lectures in the field of information technology to educate teachers	3.71	1.54	5	High
31	The school principal facilitates the use of the school's staff (teachers, administrators, and students) for the technology available in it	3.66	1.55	6	Medium
38	There is a website for the school	3.28	1.36	7	Medium
37	The principal directs teachers to publish newspapers, magazines, and electronic newsletters	3.11	1.45	8	Medium
	Total	3.67	0.79		Medium

It is noted from Table (4) that the role of school administration in spreading the culture of using information technology in secondary schools in Karak, from the teachers' point of view in the field of "disseminating digital information culture in the school setting" was average, as the arithmetic mean was (3.67) and a standard deviation ( 0.79), and the paragraphs of this field came within the high and medium levels, as the arithmetic averages ranged between (4.26-3.11) and came in the first place, paragraph (36), which states: "The school administration encourages the use of information technology in order to enhance the skills of scientific research in the school." With an arithmetic mean (4.26) and a standard deviation (1.04) with a high degree, and came in the last rank, paragraph (37), which states: "The principal directs the teachers to issue newspapers, magazines, and electronic bulletins" with a mean (3.11) and a standard deviation (1.45) and a medium degree. The result of this field is that the school administration encourages the dissemination of the culture of using information technology in schools and in scientific research, and facilitates interaction between teachers and students using modern electronic means. For this technology, it holds workshops, lectures, and meetings specialized in the field of information and communication technology and its uses in the educational field, and tries to apply it through the creation of school websites and electronic publishing of news through newspapers, magazines and electronic brochures.

### **3- ENCOURAGING TEACHERS TO USE INFORMATION AND COMMUNICATION TECHNOLOGY**

Arithmetic averages, standard deviations, rank, and the level of the school administration's role in spreading the culture of using information technology in secondary schools in Karak were calculated from the teachers' point of view for the paragraphs of the field "Encouraging teachers to use information and communication technology", and Table (5) shows that

**TABLE (5): ARITHMETIC AVERAGES, STANDARD DEVIATIONS, AND RANK FOR THE LEVEL OF THE PARAGRAPHS OF THE FIELD OF ENCOURAGING TEACHERS TO USE INFORMATION AND COMMUNICATION TECHNOLOGY, RANKED IN DESCENDING ORDER.**

No.	Field	Mean	Deviation	Rank	Level
22	The school administration focuses on using information technology to keep track of students' levels	3.68	1.30	1	High
24	The school principal encourages teachers to use information technology	3.67	1.35	2	Medium
27	The director directs teachers to enter their grades and save them in the EduWave system	3.60	1.44	3	Medium
28	The principal constantly shows teachers the importance of the Internet as a source for the most up-to-date information	3.60	1.45	4	Medium
30	The school principal constantly monitors teachers' use of information technology	3.57	1.52	5	Medium
29	The principal asks teachers to provide him with the required reports electronically	3.55	1.46	6	Medium
26	The school administration holds training courses for teachers on educational software in cooperation with experts in this field	3.53	1.41	7	Medium
25	The school administration encourages a culture of learning and self-training in the school through the use of modern technical means	3.49	1.41	8	Medium
23	The school principal urges teachers to communicate electronically	3.13	1.42	9	Medium
	Total	3.54	1.20		Medium

It is noted from Table (5) that the level of the school administration's role in spreading the culture of using information technology in secondary schools in Karak, from the teachers' point of view in the field of "encouraging teachers to use information technology" was average, with an arithmetic mean (3.54) and a standard deviation ( 1.20), and the paragraphs of this field came at the average level, except for paragraph (22), which came at a high level, and the arithmetic averages ranged between (3.68-3.13), and paragraph (22) came in the first rank, which states: "The school administration focuses on the use of information technology to follow up Students' levels first-hand, with an arithmetic mean (3.68), a standard deviation (1.30) and a high level. Paragraph (23) came in the last rank, which states: "The principal urges teachers to communicate by electronic methods" with an arithmetic mean (3.13) and a standard deviation (1.42). ) at an average level, and this result is attributed to the school administration focusing on using information technology and employing it in schools in the field of student affairs and follow-up, due to the low level of their use of this technology below the required level, and this result is attributed to the school administration focusing on using The use of information and communication technology in secondary schools in the areas of managing student affairs in schools, and hence the level is still below the required level; Therefore, the school administrations trained the workers and encouraged them to enroll in training programs and to self-develop their skills in employing information and communication technology in their various fields of work. The administrations also followed up on teachers for using the Edu wave system, entering grades, preparing electronic reports, and dealing through the Internet and intranet for electronic communication between them and the administration.

#### **4- PROVIDING THE APPROPRIATE INFRASTRUCTURE**

Arithmetic averages, standard deviations, rank, and the level of the school administration's role in spreading the culture of using information technology in secondary schools in Karak were calculated from the teachers' point of view for the paragraphs of the field of "providing appropriate infrastructure", and Table (6) shows that

**TABLE (6): ARITHMETIC AVERAGES, STANDARD DEVIATIONS, AND RANK FOR THE LEVEL OF THE APPROPRIATE INFRASTRUCTURE PROVISIONING PARAGRAPHS, ARRANGED IN DESCENDING ORDER.**

No.	Field	Mean	Deviation	Rank	Level
3	I think that the number of computers available in the school is sufficient	3.87	1.22	1	High
1	I think that the school principal has an essential role in spreading the culture of using information technology.	3.67	1.06	2	Medium
2	School teachers can easily access computers when needed	3.67	1.25	3	Medium
4	I think that there are enough computers in the school for the students	3.61	1.23	4	Medium
12	I see that the use of the computer activates the administrative communication channels	3.46	1.10	5	Medium
8	I use e-mail to communicate with the school administration	3.42	1.18	6	Medium
11	I think that the computer software available in the school is sufficient	3.34	1.20	7	Medium
9	I use e-mail to communicate with parents of students	3.30	1.07	8	Medium
7	I use the internet in my daily life on a regular basis	3.23	1.27	9	Medium
10	I think the software available in the school is suitable	3.21	1.08	10	Medium
5	I am aware of the Ministry's plans to modernize the educational system to keep pace with the era of the knowledge economy	2.88	1.17	11	Medium
6	I think that training programs on the use of information technology reflect positively on the performance of teachers	2.76	1.34	12	Medium
	Total	3.37	0.57		Medium

It is noted from Table (6) that the level of the school administration's role and its role in spreading the culture of using information technology in secondary schools in Karak, from the teachers' point of view in the field of "providing appropriate infrastructure" was medium, with an arithmetic mean (3.37) and a standard deviation (0.57). All the paragraphs of this field came at an average level except for paragraph (3) which came at a high level, and the arithmetic averages ranged between (3.87-2.76), and paragraph (3) came in the first rank, which states: "I believe that the number of computers available in the school is sufficient", with an arithmetic mean (3.87) and a standard deviation (1.22) and a high degree, and came in the last rank, paragraph (6), which states: "I believe that training programs on the use of information technology reflect positively on the performance of teachers" with an arithmetic mean (2.76) and a standard deviation (1.34) To a medium degree, and this result explains that the school infrastructure is qualified and satisfactory in terms of the number of devices, and it is sufficient from the teachers' point of view, but in terms of spreading the culture of using information technology, it is below the required and satisfactory level, and teachers' use of devices is surrounded by some restrictions that prevent it, when comparing The number of devices combined with the number of students is insufficient and does not fit the quality assurance standards. It may be attributed to the fact that teachers are convinced of using technology in communication and administrative communication is still below the required level, especially since computer programs are not available in schools.

#### **5- PROVIDING TECHNICAL SUPPORT AND MAINTENANCE**

Arithmetic averages and standard deviations were calculated and the level of the school administration's role in spreading the culture of using information technology in secondary schools in Karak was determined from the teachers' point of view for the paragraphs of the field of "providing technical support and maintenance", and Table (7) shows that

**TABLE (7): ARITHMETIC AVERAGES, STANDARD DEVIATIONS, AND RANK FOR THE LEVEL OF THE PARAGRAPHS OF THE FIELD OF PROVIDING TECHNICAL SUPPORT AND MAINTENANCE, ARRANGED IN DESCENDING ORDER.**

No.	Field	Mean	Deviation	Rank	Level
41	The school administration cooperates with teachers in overcoming technical problems	2.88	1.34	1	Medium
40	There is an IT specialist in the school	2.66	1.24	2	Medium
42	When a technical problem occurs, the school administration responds quickly to solve it	2.59	1.31	3	Medium
39	The school administration provides technical support to teachers	2.42	1.09	4	Medium
	Total	2.64	0.79		Medium

It is noted from Table (7) that the level of the school administration's role in spreading the culture of using information technology in secondary schools in Karak, from the teachers' point of view in the field of "providing technical support and maintenance" was medium, with an arithmetic mean (2.64) and a standard deviation (0.79). All the paragraphs of this field came at an average level, and the arithmetic averages ranged between (2.88-2.42), and the first rank came in paragraph (41) which states: "The school administration cooperates with teachers in overcoming technical problems", with an arithmetic mean (2.88) and deviation Standard (1.34), and came in the last rank, paragraph (39) which states: "The school administration provides technical support to teachers" with a mean (2.42) and a standard deviation (1.09). This result is due to the fact that technical support and maintenance for equipment and infrastructure in schools is not They are available, and therefore many of the devices may be unusable, and school administrations are trying with personal efforts to overcome these problems, by training a computer teacher to maintain the devices or using private centers, or people outside the school.

Second: the results related to the answer to the second question, which reads: "Are there statistically significant differences at the level ( $\alpha \leq 0.05$ ) in the role of school administration in spreading the culture of using information technology in secondary schools in Karak, from the teachers' point of view, due to the gender variable?"

To answer this question, the arithmetic averages, standard deviations, the level of school administration and its role in spreading the culture of using information technology in secondary schools in Karak were calculated from the teachers' point of view, and the t-test for independent samples, according to the gender variable, appears in Table (8). that.

**TABLE (8): ARITHMETIC AVERAGES AND STANDARD DEVIATIONS OF THE LEVEL OF THE SCHOOL ADMINISTRATION'S ROLE IN SPREADING THE CULTURE OF USING INFORMATION TECHNOLOGY IN SECONDARY SCHOOLS IN KARAK, FROM THE TEACHERS' POINT OF VIEW, AND THE VALUE OF (T) ACCORDING TO THE GENDER VARIABLE**

Field	Gender	No.	Arithmetic Mean	Standard Deviation	T Value	Indication level
<b>Providing the right infrastructure</b>	Male	475	3.23	0.66	7.620	*0.000
	Female	525	3.50	0.43		
<b>School Principal and IT</b>	Male	475	3.74	1.07	2.517	*0.012
	Female	525	3.89	0.84		
<b>Encouraging teachers to use information technology</b>	Male	475	3.41	1.30	3.277	*0.001
	Female	525	3.65	1.09		
<b>Spreading the digital information culture in the school setting</b>	Male	475	3.61	0.70	2.517	*0.012
	Female	525	3.73	0.88		
<b>Provide technical support and maintenance</b>	Male	475	2.60	0.83	1.553	0.121
	Female	525	2.67	0.75		
<b>Total</b>	Male	475	3.41	0.73	3.732	*0.000
	Female	525	3.56	0.48		

The results in Table (8) indicate that there are statistically significant differences at the level ( $\alpha < 0.05$ ) of the role of school administration in spreading the culture of using information and communication technology in secondary schools in Karak, from the teachers' point of view, and the T-value of independent samples, depending on the gender variable. Based on the calculated T value for the total score, which amounted to (3.732), and at a level of significance (0.000), as well as the presence of statistically significant differences at the level ( $0.05 \geq$ ) in all areas (providing the appropriate infrastructure, the school principal, information and communication technology, encouraging teachers to use Information and communication technology, dissemination of digital information culture in the school setting) at a significant level, respectively (0.000),

(0.012), (0.001), (0.012), where the difference was in favor of females, with the exception of the field of "providing technical support and maintenance", there were no statistically significant differences. The significance level was (0.121), and the previous result is that females are more committed to the instructions and decisions issued by school administrations and educational administrations, and they are more conservative on devices, and they are keener to apply technology and employ its applications in the educational field. As for the field of providing technical support and maintenance," male and female schools are equal in this aspect, as there is no difference in the availability of this support by the directorates of education and school administrations, and it differs with the results of the study of Al-Rashidi and Al-Shareja (2014), which did not show differences due to the gender variable.

Recommendations and Suggestions:

#### THE STUDY RECOMMENDS:

- The necessity of paying attention to providing information and communication technology requirements in all Jordanian schools, increasing the number of devices and providing the necessary software.
- Providing technical support and maintenance in all schools and training all computer teachers and computer lab evaluators on maintenance.
- Rehabilitation and training of school principals and teachers in the field of information and communication technology in the educational field through specialized training courses and workshops.
- Intensifying training courses related to the employment of information and communication technology for teachers and principals of secondary schools in the regions of the Kingdom.
- Conducting comparative studies between public and private schools in the field of information technology employment in schools.

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