The impact of implementing an electronic system via the web on the job performance of workers in the education sector in Kafr El-Sheikh Governorate

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Abstract:

The study aims to analyze the impact of implementing an electronic system via the web on improving the job performance of workers in the education sector in Kafr El-Sheikh Governorate, in the context of the problem of weak digital research and e-management skills. An exploratory study was conducted on a small sample of employees, which showed significant shortcomings in these skills, which necessitated the proposal of an electronic system that allows training at any time and place. The study seeks to answer questions related to the impact of the proposed system on cognitive and performance aspects, while emphasizing the importance of investing in modern technologies to improve performance. Previous studies also summarize the importance of e-training in enhancing job performance and developing skills across various sectors, while pointing out the challenges facing these programs, such as the lack of trained competencies and administrative, financial, technical and security obstacles. The field study was conducted on a random sample of 30 workers in the education sector in Kafr El-Sheikh Governorate, where digital content was designed via an electronic system to improve digital research skills, e-management, and the use of web services. The study used tools such as an achievement test to measure skills and observation cards for actual performance. The electronic system was developed according to specific objectives to improve the job performance of employees. The model of Muhammad Attia Khamis (2007) was followed in the stages of analysis, design, development, and final evaluation. An exploratory experiment was conducted for an initial sample (10 individuals), followed by a baseline experiment for a sample (30 individuals), where research tools were applied before and after using the system. The results of the T-test showed statistically significant differences in favor of the post-measurement in the cognitive and performance aspects. The achievement test scores improved, as did performance in digital research skills, e-management skills, and web services usage skills. The study recommended generalizing the electronic system to educational institutions, providing training programs, developing the technological

infrastructure, supporting research and development in e-management, in addition to conducting future studies and providing continuous technical support.

Keywords: Electronic system - Improving job performance - Digital research skills - E-management - E-training - Modern technologies - Achievement test - Technological infrastructure

الملخص باللغة العربية:

١- تهدف الدراسة إلى تحليل أثر تطبيق نظام إلكتروني عبر الويب على تحسين الأداء الوظيفي للعاملين في قطاع التعليم بمحافظة كفر الشيخ، في سياق مشكلة ضعف مهارات البحث الرقمي والإدارة الإلكترونية. أجريت دراسة استكشافية على عينة صغيرة من الموظفين، مما أظهر قصورًا كبيرًا في هذه المهارات، وهو ما استدعى اقتراح نظام إلكتروني يتيح التدريب في أي وقت ومكان. تسعى الدراسة للإجابة عن أسئلة تتعلق بتأثير النظام المقترح على الجوانب المعرفية والأدائية، مع التأكيد على أهمية استثمار التقنيات الحديثة لتحسين الأداء. كما تلخص الدراسات السابقة أهمية التدريب الإلكتروني في تعزيز الأداء الوظيفي وتنمية المهارات عبر مختلف القطاعات، مع الإشارة إلى التحديات التي تواجه هذه البرامج، مثل نقص الكفاءات المدربة ومعوقات إدارية ومالية وتقنية وأمنية.

٢- أجريت الدراسة الميدانية على عينة عشوائية من ٣٠ عاملًا في قطاع التعليم بمحافظة كفر الشيخ، حيث تم تصميم محتوى رقمي عبر نظام إلكتروني لتحسين مهارات البحث الرقمي، والإدارة الإلكترونية، واستخدام خدمات الويب. استخدمت الدراسة أدوات مثل اختبار تحصيلي لقياس المهارات وبطاقات ملاحظة للأداء الفعلي. تم تطوير النظام الإلكتروني وفقًا لأهداف محددة لتحسين الأداء الوظيفي للعاملين، وتم اتباع نموذج محمد عطية خميس (٢٠٠٧) في مراحل التحليل، التصميم، التطوير، والتقييم النهائي. تم إجراء تجربة استكشافية لأفراد عينة أولية (١٠ أفراد) تلتها تجربة أساسية لعينة (٣٠ فردًا)، حيث تم تطبيق أدوات البحث قبل وبعد استخدام النظام. أظهرت نتائج اختبار T-test فروقًا ذات دلالة إحصائية لصالح القياس البعدي في الجوانب المعرفية والأدائية. تحسنت درجات الاختبار التحصيلي، كما تحسن الأداء في مهارات البحث الرقمي، ومهارات الإدارة الإلكترونية، ومهارات استخدام خدمات الويب، أوصت الدراسة بتعميم النظام الإلكتروني على المؤسسات التعليمية، وتقديم برامج تدريبية، وتطوير البنية التحتية التكنولوجية، ودعم البحث والتطوير في الإدارة الإلكترونية، بالإضافة إلى إجراء دراسات مستقبلية وتوفير دعم فني مستمر.

٣- الكلمات المفتاحية: نظام إلكتروني - تحسين الأداء الوظيفي - مهارات البحث الرقمي - الإدارة الإلكترونية - التدريب الإلكتروني - التقنيات الحديثة - اختبار تحصيلي - البنية التحتية التكنولوجية

1- Introduction to the study:

In light of the competition witnessed by institutions and the context of digital transformations that have affected all countries of the world, institutions of all types and activities seek to improve the quality of

their products or services, and this is done by improving the performance of their human resources and qualifying them to keep pace with technological changes. Developing the job performance of workers in the education sector has become a necessary and inevitable matter, as modernization processes in the administrative field require raising it to a level that enables it to achieve goals and achieve ambitions. Modern developments also impose on administrative leaders the necessity of multiple skills, the ability to learn independently, integrate with workers, clarify facts, set goals and justifications, and the ability to rehabilitate and develop sustainable professionally in their working lives. Saleh, A., Omar, S. S., Milhem, M., & Ateeq, A. (2024)

With the tremendous and rapid development in the field of technology and the spread of the Internet and its entry into most fields, everyone has become fond of searching and sailing in this magical world, and people have begun to spend more time using the Internet and the services it provides, which imposes the necessity of benefiting from it in enhancing the job performance of workers Paudel, R., Kunwar, V., Ahmed, M. F., & AYedgarian, V. (2024)

The online electronic system provides workers with the ability to choose the appropriate time and place and frees them from the constraints of time and place, and allows them to exchange huge amounts of information, in addition to the low cost of training, and eliminating the problem of the shortage of qualified trainers, hence the importance of the electronic system via the web and what it provides of many capabilities and what it is characterized by in terms of diversity, flexibility, ease of access and creating a more enriching and enjoyable teaching and learning experience, which helps in enhancing the job performance of workers during service and improving their skills and increasing their efficiency and training to meet the challenges of contemporary life Yumhi, Y., Dharmawan, D., Febrian, W. D., & Sutisna, A. J. (2024)

2- General framework of the study:

2.1-Study problem:

The proposed research idea came in developing an electronic system via the web and measuring its impact on the job performance of workers in the education sector; many professional fields in our current era depend heavily on Internet applications and services. The researchers believe that the proposed electronic system can be applied in the field of training workers and increasing their efficiency by learning new skills that contribute to enhancing their job performance to benefit from the advantages of electronic training. Many factors contributed to crystallizing the idea of the study, including- :

- **Note**:

- Through the researchers' participation in many training courses, they noticed that there is a severe deficiency in digital research skills, electronic management, and the use of web applications, and the existence of a knowledge and skill gap among workers in the education sector towards using modern technologies, and a clear and tangible deficiency on the part of the concerned parties towards training and developing the skills of workers.

- **Interview**:

- Based on the above, the researchers conducted many interviews with supervisors, teachers, trainers, and directors of some schools and departments. Their opinions showed that they attributed the weakness of digital research skills, the application of electronic management, and the use of web applications to the lack of financial allocations for training, the low level of training, and the short training time that does not allow each trainee to research and benefit from the available capabilities, in addition to focusing on the theoretical aspect and neglecting the practical and skill aspect, and not accurately identifying the training needs of employees.

- **Reviewing previous studies and research in the field of electronic systems to enhance the job performance of workers during service, which can be divided into**:

- **First**: Studies that dealt with training workers during service, such as the study (2015) Qureshi, Muhammad Khamis Al-Sayed Muhammad Al-Habati (2017), and the study of Samir bin Musa Al-Najdi (2018), AL ALDEEB, H. A.

F. D. E. Y. (2022), Nebolisa, C. M., & Uzor, D. N. (2023), Qaisra, R., & Haider, S. Z. (2023)

- Second: Studies that dealt with digital research skills, such as the study of Bamgbose, A. A., Akalumhe, K. O., & MOMOH, I. (2021), Yamani, H., AlHarthi, A., & Elsigini, W. (2021), Fatima-, & Bin Zainab. (2022), Okute, A., Enang, C. E., & Etoma, M. G. (2022), Kwiatkowska, W., & Wiśniewska-Nogaj, L. (2022), Mena-Guacas, A. F., Meza-Morales, J. A., Fernández, E., & López-Meneses, E. (2023), Ogunbodede, K. F., Ewata, T. O., Kumar, A., & Okediji, O. G. (2023), Shazli. (2024)

- **Third**: Studies that addressed the application of e-management in many sectors, such as the study of Hanan Muammar Abu Ajila Al-Abani (2015), (2015) Roberts, the study of Amirouche Bouchlaghem (2017), and the study of Suham Badi (2018), Khaled Al-Nour Khader Al-Nour (2018), Anas Talal Ali Al-Amaira (2020), Amani, Rahab, & Ziani, Amqran. (2024), Al-Nashwa, & Sari Ahmed Ibrahim. (2024). Fourth: Studies that addressed enhancing the job performance of employees, such as the study of, , and the study of Maha Muhammad Abu Al-Ezz (2016), (2016) Sahay, Liu, D., Gong, Y., Zhou, J., & Huang, J. C. (2017), , and the study of Aziza Abdullah Tayeb (2018), Deng, H., Duan, S. X., & Wibowo, S. (2023), Eke, J. O. (2024). □ Exploratory study:

- The researchers conducted an exploratory study on a sample of (10) workers in the education sector in East Kafr El-Sheikh Administration. The aim was to study the extent to which these workers were able to master digital research and electronic management skills, and use some Internet applications to develop their job performance with the aim of helping the researchers identify aspects of the problem. Table (1) shows the results of the exploratory study sample, as the results of this study indicated that there is a severe weakness in digital research skills, the application of electronic management, and the use of some Internet applications.

Table (1) Results of the exploratory study

Skills	Research Sample	Analysis
First: Digital research skills	**10 employees of East Kafr El-Sheikh Education Administration**	
▪ **Searching the Internet for books and research related to the specialization.**		▪ **32% of the research sample have the ability to search and access books and research related to the specialization.**
▪ **Using the Internet to search for audio and video files.**		▪ **28% of the research sample use the Internet to search for audio and video files.**
▪ **Using the Internet to search for image files.**		▪ **19% are proficient in using the Internet to search for image files.**
▪ **Searching for information in databases and library catalogs using keywords.**		▪ **15% are proficient in information search skills using databases and library catalogs.**
▪ **Using the Internet to search for news files in news groups New Groups.**		▪ **18% are proficient in using the Internet to search for news files and news groups.**
▪ **Browsing search engines and distinguishing between their features and**		▪ **24% browse search engines.**

search capabilities.		
Second: E-management application skills		
▪ **Skills in dealing with financial management and spreadsheet programs.**		▪ **Skills in dealing with financial management and spreadsheet programs.**
▪ **Skills in dealing with records and documents electronically.**		▪ **Skills in dealing with records and documents electronically.**
▪ **Skills in dealing with employee affairs electronically.**		▪ **Skills in dealing with employee affairs electronically.**
▪ **Skills in dealing with student affairs electronically.**		▪ **Skills in dealing with student affairs electronically.**
Third: Using some web applications		
▪ **Using e-mail to send and receive work-related e-mails.**		▪ **Use email to send and receive work-related emails. Use social media services**
▪ **Using social networking services**		▪ **Use email to send and receive work-related emails. Use social media services**

The table was prepared by the researchers after analyzing the data resulting from the exploratory study

In light of the researchers' observations and experiences, the interviews they conducted with specialists, trainers, and directors of some schools

and departments, and what was indicated by the recommendations and results of previous research and studies, and in light of the results of the exploratory study conducted by the researchers, the problem of the current research can be identified in:

-The existence of a deficiency in the skills related to digital research, the application of electronic management, and the use of web applications, among workers in the education sector.

-The weak level of training among workers in the education sector and the focus on the skills specific to the teacher only and teaching strategies and the neglect of digital research and electronic management skills.

Therefore, there was a need to develop their skills and overcome the difficulties they face, and the need to develop an electronic system via the web to develop digital research skills and the application of electronic management, and the use of some web applications to enhance job performance, to support the effectiveness of electronic systems and link them to one of the most important skills of the twenty-first century, which are digital research skills, electronic management, and the use of web services, to enable all workers in the education sector to train in the place and time that suits each individual.

In light of the above, and in response to scientific necessities and as an extension of research results, and proposing solutions to the problem of deficiencies in some digital research skills, application of electronic management, and use of some web applications among education sector workers, the study questions are represented in the following main question- :

- **What is the impact of applying an electronic system via the web on the job performance of education sector workers in Kafr El-Sheikh Governorate؟**

In an attempt to answer the main research question, the researchers pose the following sub-questions- :

Q1: What are the digital research skills that must be available to education sector workers؟

Q2: What are the e-management application skills that need to be developed among education sector workers؟

Q3: What are the web services usage skills that need to be developed among education sector workers؟

Q4: What is the impact of applying the proposed web-based electronic system on developing the cognitive aspect related to digital research skills, application of electronic management, and use of web services among education sector workers؟

Q5: What is the impact of applying the proposed web-based electronic system on developing the performance aspect related to digital research skills, application of electronic management, and use of web services among education sector workers؟

٢/٢-Study objectives:

The current study aims to achieve the following objectives- :

1-Revealing the nature of the relationship between an electronic system via the web and each of:

A- The cognitive aspect related to digital research skills, the application of electronic management, and the use of web services among workers in the education sector.

B- The performance aspect of digital research skills, the application of electronic management, and the use of web services among workers in the education sector.

2-Revealing a list of digital research skills, electronic management application skills, and web services use skills that must be developed among workers in the education sector.

٢/٣-Importance of the study:

The importance of the study lies in- :

1- The study derives its importance from global, regional, and local trends, which call for the necessity of benefiting from modern

technologies, especially after the spread of the Internet and its various applications, and working to employ them to develop job performance.

2- The study also derives its importance from presenting a vision for an electronic system via the web and benefiting from it in developing digital research skills, the application of electronic management, and the use of web services by applying it to workers in the education sector.

3- It may benefit many sectors such as application designers, in addition to institutions seeking to design and produce electronic environments, as well as those interested in digital research and the application of electronic management within business institutions.

4- This study is a response to the necessities of this era and the problems that prevent employees from attending training for health reasons, or due to the lack of training time and the lack of equipment in some schools and educational administrations.

5- Motivating institutions to produce and use electronic systems via the web to develop the job performance of their employees.

٢/٤-Study Methodology:

The researchers used the developmental research method, which deals with systems analysis and development, where Abdel Latif Elgazzar (2014) presented at the International Conference on E-Learning entitled Developing E-Learning Environments for Field Practitioners and Development Researchers, a definition of the developmental research method, so that the developmental research method in its modern concept consists of the integration of three methods as follows:

-The study and analysis stage, in which the descriptive method is used.

-The systems development stage to design, develop and evaluate applications, processes and products that must achieve the standards of internal consistency and effectiveness, and verify the quality of treatments (independent variable) in light of the (arbitration) standards. This is done by applying one of the ISD design models, so the

researchers adopted the design model of Muhammad Attia Khamis (2007) to design and develop electronic content via the web.

-The evaluation and research experiment stage, in which the experimental method is used, the effect of the proposed electronic system on the development of digital research skills, electronic management skills, and web services use skills among workers in the education sector.

٢/٥-Motivation for the study:

The choice of this research topic was not a coincidence, but rather had its motives that justified its choice, as the use of electronic systems via the web to develop job performance has become a necessary requirement of modern management, and these motives can be explained as follows:

-Professional motives: related to the work of the researchers as professors of information systems, as they wish to enrich the field of business information systems with research information that addresses the impact of applying an electronic system via the web on developing job performance.

-Objective motives: related to studying the impact of the proposed electronic system via the web, the cognitive aspect and the performance aspect related to digital research skills. Applying electronic management and using web services. And revealing a list of digital research skills, electronic management application skills, and web services usage skills

٢/٦-Scope of the study:

The current study was limited to the following- :

-Time scope: The study was implemented in 2023 AD.

-Geographic scope: Technology Development Center - Kafr El-Sheikh Governorate.

-Human scope: The study was limited to (120) employees working in the education sector in Kafr El-Sheikh Governorate.

-Subject scope: The current study is concerned with studying the impact of applying an electronic system via the web on the job performance of workers in the education sector in Kafr El-Sheikh Governorate.

٢/٧-Study organization:

To achieve the desired objectives of the study, the rest of it is divided as follows:

Section Three: Previous studies, the research gap, and derivation of study hypotheses.

Section Four: The theoretical framework of the study:

-The electronic system.

-Digital research skills.

-Electronic management.

Section Five: Field study.

Section Six: Results and recommendations.

3- Previous studies:

Based on the cumulative characteristic of science, it is clear that any scientific research conducted depends primarily on the experiences of others and benefiting from their experiences represented in their previous studies and research. In this section, the researchers discussed the most important previous studies that addressed the variables of the current study, and based on that, the researchers review the previous studies.

٣/١-Review of previous studies:

-Maha Mohamed Abu El-Ezz's study (2016) focused on designing an interactive system to develop e-management skills and develop job performance among employees in educational institutions. The study used one of the e-management systems and some Google applications

and e-mail. The study tools were an achievement test and an observation card. The study results reached the effectiveness of the interactive electronic system in developing the cognitive and performance aspects of e-management skills and developing job performance among the research sample.

-Sahay's study (2016) addressed enhancing job performance and developing the skills of health sector workers in India. The researcher used the descriptive analytical approach to identify the skills required for it. The study results also reached a proposal for developing knowledge management skills for health sector workers. The study recommended a shift to knowledge management within hospitals and providing the material and human requirements for the transformation process.

-The study of Liu, D., Gong, Y., Zhou, J., & Huang, J. C. (2017) finds that organizations have tended to maximize their creative and innovative capabilities and use technology to activate the use of management information systems and provide what achieves satisfaction for customers and employees alike, and at the same time achieve superiority over competitors through a sustainable competitive advantage, especially in the human resources department of attracting, training and retaining talented resources to be able to achieve speed and efficient performance. - Aziza Abdullah Tayeb's study (2018) reached a vision to enhance job performance and develop faculty members' skills in knowledge management in light of the concept of the knowledge economy. The researcher used the descriptive analytical approach to identify the skills required for them. The results of the study also reached a proposal for developing knowledge management skills among faculty members in universities, enhancing their job performance and their roles in preparing a society capable of producing and dealing with knowledge to feed the transformation into a distinguished knowledge economy. The study recommended spreading the culture of knowledge management within universities and providing the requirements of various knowledge management processes, and establishing knowledge management centers in universities that follow

up and facilitate everything related to knowledge management and development. - Kateryna, A., Oleksandr, R., Mariia, T., Iryna, S., Evgen, K., & Anastasiia, L. (2020) study explains the impact of digital knowledge on the professional environment, which allows people to create and share digital content. It also describes how digital knowledge can be used in communication and problem solving in order to achieve self-realization effectively and creatively in education, work and society. There are 3 models of digital skills that largely complement each other: DigCompEdu 2018, EU DigComp, and Target Competency Model 2025. These models describe changes in working conditions and employee requirements in the context of digitization. New technologies are proposed in teaching continuous, social, and personal digital skills that focus on students' needs and interests. The combination of various educational technologies, forms of training, and technical innovations in a single educational system is also justified. The improvement in the quality of digital education is due to improved data analysis and prediction, and improvements in prediction tools allow for a better understanding of digital transformation in various departments and ensuring their interaction. - Rezaei, A., & Sabzekar, M. (2022) Study on the impact of information technology on the empowerment of employees at the Technical and Vocational University of South Khorasan Province. In terms of purpose and type, this research is a descriptive survey, and the statistical community included all employees of the university. A questionnaire was used to collect information. Its reliability was confirmed by Cronbach's alpha coefficient and its validity was evaluated by experts. Each section of the questionnaire addressed different dimensions of IT impacts such as accountability, achievements, communication, IT, and employees' sense of competence. The normality of the data was assumed for all dimensions of employee function using the Kolmogorov-Smirnov test. The results showed that the use of IT at the South Khorasan Technical and Vocational University led to a sense of competence, improved the quality of employee performance, facilitated communication and employee speed under different working conditions, and led to various improvements. at the university. - Stofkova, J., Poliakova, A., Stofkova,

K. R., Malega, P., Krejnus, M., Binasova, V., & Daneshjo, N. (2022) The study analyzes and identifies digital skills of citizens in the context of e-government development and describes the use of e-government services by EU citizens with a focus on the Slovak Republic. The data were collected through a questionnaire on digital skills of citizens of the Slovak Republic according to selected categories, use of e-government services, as well as awareness of e-government services. Solutions to improve e-government in the Slovak Republic are being implemented gradually. Improving digital skills is one of the priorities of the Ministry of Education, Science, Research and Sport of the Slovak Republic, according to the National Coalition for Digital Skills and Professions of the Slovak Republic, which has adopted an action plan for 2019-2022 to improve the results in the DESI index by 2025 and focus on digital skills demanded by employers. The survey revealed that the majority of schools in Slovakia provide only weak support for digital education (around 68% and 45%, respectively, in the EU). The research also revealed a low level of digital literacy among young people. These competencies are very important for gaining a place in the labor market in a digital society. The projects aim to support the development of digital skills of primary and secondary school students, and to integrate new technologies into teaching.

-The study of Abdullah Ali Al-Shahrani, M., Mufleh, & Anwar Muhammad Khalifa. (2022) in which two questionnaires were applied to the study sample consisting of (135) members and (799) male and female students, who were randomly selected. The results indicated that there is a degree of "approval" for the use of faculty members at Bisha University of distance e-learning in light of the Corona pandemic. There is also a degree of "approval" among faculty members at Bisha University on the existence of obstacles to the use of distance e-learning in light of the Corona pandemic. There is also a degree of "approval" among faculty members at Bisha University on the existence of necessary training needs to use distance e-learning in light of the Corona pandemic. The results also indicated that there is a degree of "strong approval" for students' use of distance e-learning at Bisha University in light of the Corona pandemic. The results also indicated

that there is a medium degree of obstacles related to students' use of distance e-learning at Bisha University in light of the Corona pandemic. There is also a degree of "approval" among students at Bisha University on the existence of necessary training needs to use distance e-learning in light of the pandemic. In light of the results of the thesis, a set of recommendations were presented, including: The necessity for the university to adopt a strategic plan to train faculty members at the university on the use of modern technologies in general and the e-learning management system (Blackboard) in particular. In addition to training students on the use of the e-learning management system Blackboard intensively and continuously. - Study ALMalki, H. M. (2023) This study aimed to identify the impact of information technology in its various dimensions (hardware components, software, databases, networks) on the performance of administrative employees at King Abdulaziz University, and this study relied on the descriptive (analytical) approach. The study tool was distributed (electronically), and the study community amounted to (4047) employees. To achieve the study objectives, the study sample was selected through a simple random sample of administrative employees at King Abdulaziz University. The data were statistically processed using the (SPSS) program. The study reached several results, the most important of which are: that the majority of administrative employees at King Abdulaziz University work in scientific colleges, that information technology has a clear impact on job performance at King Abdulaziz University through the university's use of computers to complete administrative work, that the impact of information technology appears on job performance in the availability of the appropriate electronic infrastructure at the university, which leads to full commitment of employees to work, that the university uses various types of data and information to provide various services, and that it uses software that is characterized by its simplicity and flexibility for beneficiaries, and that there are statistically significant differences between the opinions of sample members about the impact of (material components) on job performance at King Abdulaziz University, and all values of the significance level were less than (0.05). The study also reached a set of

recommendations, including: developing the human cadre of administrators from various colleges, deanships and departments at the university by attracting experts in the field of development and training and holding training courses in the field of information and communications technology. The necessity of qualifying individuals working in the university by involving them in training courses in the field of technology and software to face the changes that occur and not be satisfied with their current capabilities, and to work on providing advanced and updated databases that are compatible with the needs of society. The nature of work in the university.

٣/٢-Research gap:

It is clear from the previous studies that were presented that there is an increasing interest in studying electronic training systems due to their important role in improving and developing job performance. By presenting and analyzing previous studies, we can draw the following conclusions:

- Most previous studies highlighted the role of electronic training systems.
- Some studies focused on the shortcomings of electronic training systems.
- Some previous studies used the descriptive and experimental approaches.
- The results of the exploratory study conducted by the researchers agree with the results of some previous studies, which indicated the existence of shortcomings in the skills related to digital research, the application of electronic management, and the use of web applications among workers during service, the weak level of training among workers in the education sector, and the focus on the skills specific to the teacher only and teaching strategies, and the neglect of digital research and electronic management skills.

١/٢/٣-The location of the current study from previous studies:

Previous studies and research formed an important database for the researcher, which he benefited from in starting work on the research, developing its organizational plan, and in developing a list of digital research skills, e-management application skills, and web services usage skills that must be developed among workers in the education sector. It also helped him design the achievement test and observation card. The current research differs from previous studies and research in: objectives, sample, and field procedures.

٢/٢/٣-Benefit:

- The current study benefited from previous studies in the theoretical framework of the electronic system, digital research skills, e-management application skills, and web services usage skills.
- Providing a vision for an electronic system via the web and benefiting from it in developing the cognitive and skill aspects of digital research skills, e-management skills, and web services usage skills.
- Revealing the nature of the relationship between the proposed electronic system and the cognitive aspect of digital research skills, e-management skills, and web services usage skills.
- Revealing the nature of the relationship between the proposed electronic system and the performance aspect of digital research skills, e-management skills, and web services usage skills.

٣/٣-Study hypotheses:

The current study seeks to verify the validity of the following research hypotheses- :

1- There is a statistically significant difference at a significance level of $0.05 \geq \alpha$)) between the average scores of the experimental research group in the pre- and post-measurement, on the achievement test to measure the cognitive aspect of digital research skills, e-management skills, and web services usage skills, in favor of the post-measurement.

2- There is a statistically significant difference at a significance level of 0.05≥α)) between the average scores of the experimental research group in the pre- and post-measurement on the performance aspect observation card for digital research skills in favor of the post-measurement.

3- There is a statistically significant difference at a significance level of 0.05≥α)) between the average scores of the experimental research group in the pre- and post-measurement on the performance aspect observation card for e-management skills, in favor of the post-measurement.

4- There is a statistically significant difference at a significance level of 0.05≥α)) between the average scores of the experimental research group in the pre- and post-measurement on the observation card of the performance aspect of web services use skills, in favor of the post-measurement.

4- Theoretical framework of the study:

Introduction:

The world has recently witnessed rapid and radical developments, and organizations, especially educational ones, have found themselves facing major changes and are required to confront these challenges by providing the new and the best. From here, administrations began to compete in using the latest innovations in the administrative field to transform from the traditional role in performance to the modern role. Information technology systems have become an integral part of their strategy to achieve their goals by improving productivity, disseminating knowledge, and supporting the creative capabilities of their employees. They have created new practices and made changes in their functions until the infection reached the function of human resources management, considering it the main wealth on which the future of development depends.

Organizations have tended to maximize their creative and innovative capabilities and use technology to activate the use of management information systems to enhance the job performance of their employees, and at the same time achieve superiority over competitors through a sustainable competitive advantage, especially in the human resources department, by attracting, training and retaining talented resources to be able to achieve speed and efficiency of performance (Liu, D., Gong, Y., Zhou, J., & Huang, J. C., 2017)

٤/١-Electronic System:

Shawky Mohamed Hassan (2016) defines the electronic system as the process in which an interactive system rich in applications based on computer technology, its networks and its various media is prepared, which enables the trainee to achieve his practical training goals through his interaction with its sources, in the shortest possible time, with the least effort, and with the highest levels of quality without being restricted by the limits of time or place.

Khader Al-Taiti (2008, p. 64) believes that the electronic system via the web, which is provided by many governmental institutions, educational institutions and private institutions, provides its various activities at any time, as the trainee can receive lectures and educational and training content at any time of the day or night and anywhere in the world via the Internet with a textual or audio explanation or image and movement.

The researchers believe that the electronic system via the web is the ideal solution to solve the problems of traditional training for the following reasons:

1- The electronic system via the web seeks to achieve the goals of contemporary institutions towards improving their products and services that they provide to society, by increasing the efficiency of their employees and enhancing their job performance.

2- The electronic system via the web is a step towards keeping pace with the tremendous development in the field of technology,

communications and information and the acceleration of knowledge and the huge amount of information.

3- The electronic system via the web provides the possibility for the trainer to reach many trainees without being restricted by the barrier of place or time.

4- The electronic system seeks to overcome the problem of the shortage of qualified trainers.

5- The electronic system via the web reduces the cost of training represented in:

a. Hall and equipment fees.

b. Fees for advertisements and letters of notification to trainees and trainers.

c. Transfer fees.

d. Fees for recruiting trainers.

6- Implementing many training programs throughout the year and not being linked to a specific time.

7- Communication and interaction between the trainer and trainees.

8- Ease of access to training content via the network synchronously or asynchronously.

9- The possibility of reusing training programs again at any time.

The researchers also believe that web-based training is of great importance in achieving many positives in various aspects of training; This is consistent with the study of Bilan, Y., Mishchuk, H., & Samoliuk, N. (2023) which confirmed the low costs of web-based training courses, and that the amount of learning and the quantity, type and form of e-training content are superior to what is acquired through traditional training, in addition to the reduction in training time due to the improvement of the content of training courses using networks. Objectives of the electronic system:

Nofal Muhammad Hassan (2013) and Bilan, Y., Mishchuk, H., & Samoliuk, N. (2023) and Stofkova, J., Poliakova, A., Stofkova, K. R., Malega, P., Krejnus, M., Binasova, V., & Daneshjo, N. (2022) and ALMalki, H. M. (2023) and Rezaei, A., & Sabzekar, M. (2022) agree that many countries have sought to adopt the electronic training method, in order to achieve many goals, including- :

1- Providing multiple and diverse training programs that meet the needs and interests of trainees.

2- Improving the level of employee performance.

3- Providing effective training on an ongoing basis for trainees.

4- Increasing trainees' motivation towards work and updating their skills.

5- Linking training programs to the actual needs of employees and work and satisfying them.

The researchers believe that the electronic system via the web requires many requirements that can be explained through the following:

First - Technical requirements:

They are- :

-An educational platform or a scalable training site designed according to the principles of educational design and the electronic system owned by the institution.

-Storage space on the server.

-Providing internet service at an appropriate speed.

-Training pages for the institution's employees according to the departments and specializations available in it.

-A studio, computers and recording devices suitable for recording and displaying training.

-Links related to the training content.

-Training and simulation software related to the training content.

-Availability of security and confidentiality factors and respect for property rights.

Second - Human requirements:

They are represented by (programmers, designers, trainers, trainees, administrative members, financial members, technical members)

Third - Material requirements:

They are represented by (design and programming fees, training package design fees, trainers' fees, hosting fees and electronic services, coordinators and supervisors' fees, halls and equipment fees, projectors' fees, lighting and sound(

Fourth - Academic requirements:

They are represented by- :

-Determining the objectives to be achieved and desired from the training.

-Planning the training and developing a training plan appropriate to the needs of the institution's employees.

-Selecting highly experienced and competent trainers.

-Preparing training packages and training content according to the objectives that have been identified.

-Developing a time plan for implementing the training.

-Evaluating training performance and following up on implementation and addressing any negatives that may appear.

-Conducting studies and measuring the impact of training.

-Providing appropriate feedback.

Fifth - Requirements (Administrative - Marketing – Personal)

They are-:

Administrative requirements

-Obtaining licenses and approvals from the competent authorities.

-Notifying employees of the start and end dates of training.

-Issuing certificates and letters of thanks.

Sixth - Marketing requirements:

-Developing a marketing plan aimed at spreading the culture of training among employees of the institution.

Seventh - Personal requirements:

-Availability of computer and Internet skills.

-Availability of self-learning skills.

-Availability of English language skills.

-The ability and competence of trainers to deliver training content and achieve its objectives.

-The ability to work and communicate with others and exchange opinions with them.

Types of training:

There are many different types and forms of training, as they vary in style and purpose according to many variables such as training time, training location, training objective, method of communication between the trainer and trainees, and many factors intervene in choosing the appropriate type of training such as the financial capabilities of the institution, the availability of a good trainer, and the characteristics of the trainees, so training can be divided into the following types:

First, training in terms of communication between the trainer and the trainees:

Shawky Hassan (2016) divides the types of electronic systems into two types:

1- Synchronous electronic system: It is training in which the trainer meets with the trainees electronically at the same time to have a direct communication or conversation between them, which may be

textual, audio or video, to receive lessons through virtual halls, so that the trainee can communicate with his trainer despite the distance and geographical separation.

2- Asynchronous electronic system: In which the trainee receives lessons and training materials regardless of the time factor, and the trainee can train wherever he is and at the appropriate time, and it is indirect training and does not require the presence of trainees at the same time that the trainee is explaining the lesson, and one of the advantages of this type is that the trainee obtains training courses at times that suit him, and the trainee can re-study the material or present it and refer to it electronically whenever he needs to, and this method is the most widespread in providing training services.

Secondly, training in terms of training time: Salah El-Din Abdel-Baqi (2002, p. 205) believes that training can be divided in terms of training time into:

A- Training before joining work: In which individuals are trained to qualify them to perform the tasks that will be assigned to them upon joining work.

B- Training during service, which is represented in training current individuals, and its main goal is to refine the individual and familiarize him with the latest developments in his field of specialization, and improve work methods.

Thirdly, training in terms of training location: Ahmed Hisham Al-Samarrai (2010, p. 96) divides training in terms of location into two forms, which are:

A- Training within the institution: It takes place in the same work conditions, and is characterized by maintaining the official work time and little effort and material costs.

B- Training outside the institution: It takes place outside the work system within the same country or outside it or in training centers affiliated with the institution, but one of its most important disadvantages is that the trainee is cut off from performing his work in

addition to the costs of transportation, trainers and material equipment, and it is characterized by exchanging experiences with other individuals and staying away from work pressures, and the availability of specialized trainers, in addition to the careful planning and organization of the training program.

Fourth: Training in terms of training objectives: The main objective of training is to develop human resources and achieve the goals that have been set, so training can be divided in terms of objective into:

A- Skills training: It aims to increase the ability of individuals to perform specific tasks efficiently.

B- Training to gain or update information: It aims to increase the individual's information and familiarize him with new variables.

C- Training for promotion: It aims to improve the capabilities of workers to prepare them to assume higher positions in the future.

D- Behavioral training: It aims to change the behavioral patterns or trends that workers follow in performing their work.

In-service training Salah Zahran Al-Khawli (2015, p. 14) believes that trained human resources are one of the most important basic elements for achieving comprehensive development in society. The level and quality of human resources are also key factors for increasing production and achieving progress. Therefore, in-service teacher training is a necessary requirement at the present time so that the teacher does not remain limited in an era in which educational developments are rapidly increasing and which place the responsibility on the teacher to continuously renew his knowledge and skills to be highly efficient, after technology has overwhelmed the educational process in a dense manner, as it has become a necessity imposed by modern educational developments, and required by technological progress in a world controlled by the system of modern technologies. It is noted that in-service training in Arab countries in general hardly exceeds mastering some skills or using some educational methods

without relying on organized plans that define roles and are linked to educational plans, which reduces the academic, professional and cultural return, which means that no benefit is gained from these courses that are implemented in random and routine ways that reduce the achievement of the desired goals, and they are not planned within the educational systems as a whole to meet the actual needs of workers, and the training system tries to meet them through various training programs (Salah Zahran, 2015, p. 15)

AL ALDEEB, H. A. F. D. E. Y. (2022) also emphasizes the importance of in-service training due to its impact on improving employee performance. The importance of explaining the objectives of the training program to trainees. Developing unconventional training methods. Designing rehabilitation programs for new entrants to the job. Deng, H., Duan, S. X., & Wibowo, S. (2023) and Eke, J. O. (2024) agree with him, as they point to the role of digital technologies in improving job performance in the digital work environment and improving the competitive advantages of institutions. And that coordination and communication enhanced by digital technology have a significant impact on knowledge exchange. And that knowledge sharing based on digital technology greatly affects the decision-making process. Moreover, enhancing the decision-making process and knowledge exchange can lead to better job performance in organizations. Nebolisa, C. M., & Uzor, D. N. (2023) and Qaisra, R., & Haider, S. Z. (2023) also point out the relationship between in-service training programs and job performance and emphasize the need to provide opportunities for in-service training programs to keep pace with current changes.

٤/٢-Digital research skills:

With the spread of the Internet and its entry into most fields, and the tremendous and rapid development of its services, everyone has become fond of searching and navigating this unlimited world, but no matter how experienced the Internet user is, he still needs someone to help him in order to be able to access the information he is looking for or discover more information, so the importance of mastering digital

research skills comes, especially for those working in the education sector due to the acceleration of knowledge and the huge amount of information.

Rashid bin Saeed Al Zahrani (2006, p. 10) and Muhammad Attia Khamis (2015, p. 901) believe that the digital research process requires acquiring some technical skills to access the required information and give better results, and that the Internet is a turbulent ocean and sailing in this ocean requires an experienced sailor.

The study by Kwiatkowska, W., & Wiśniewska-Nogaj, L. (2022) discusses digital skills and their role in collaborative distance learning, as the study was applied to students of Nicolaus Copernicus University in Torun, Poland, and their digital skills level was evaluated. Based on this evaluation, three groups of students with different skill levels were distinguished (low, medium and high). These results contribute to discussing the need to individualize the teaching and learning process and highlight the roles of developing digital competence for all participants in the learning process.

The researchers procedurally define digital research skills as those skills that education sector workers should master, and they are represented in searching the Internet using databases and search engines, to search for topics, books, regulations, laws, research, images and video clips related to the job specialization.

٤/٣-E-management:

It is a method of modern management, which works to use communications and information technology to carry out various administrative tasks such as planning, organizing, implementing, monitoring, evaluating and means of communication, in order to develop administrative work and raise its efficiency, and achieve the planned goals (Thabit Idris, 2005.(

Abdul Hamid Al-Maghribi (2006, p. 238) defines it as the use of information and communication technology systems, especially the

Internet, in all administrative operations of an institution, in order to improve the production process and increase the efficiency and effectiveness of its performance.

Saad Ghaleb Yassin (2005) believes that the process of transformation from traditional management to electronic management depends on scientific and technological methods and specialized administrative techniques, and requires pioneering expertise and specializations. Moreover, the transition from traditional management to electronic management in developing countries is a difficult and complex transformation, and faces many obstacles, resistance and challenges.

Najm Aboud (2009) explains that the development of electronic management can be traced through the following:

-Transition from direct management to remote electronic management.

-Transition from managing things to managing digital.

-Transition from hierarchical organization to network organization.

-Transition from leading others to leading oneself.

The researchers define electronic management procedurally as the application of information systems, the use of services and programs, and the utilization of devices and technology to create an integrated electronic system that facilitates access to information by individuals and enables employees in the institution to use it and develop the knowledge specific to their institution.

The importance of e-management: Mustafa Mahmoud Ibrahim (2016, p. 262), Moataz Ibrahim Qanbar (2014, p. 405), and Saad Ghaleb Yassin (2005, p. 27) agree that the importance of e-management is evident in its ability to keep pace with the qualitative and quantitative development in the field of applying information technologies and systems, and the accompanying revolution in information technology, knowledge, and the Internet revolution. There is more evidence of the importance of e-management, the most important of which are:

1- Increased data accuracy and no manual entry errors.

2- Providing information and making it easy to retrieve and present it to administrative bodies or the target party and trust in reusing data.

3- Reducing administrative procedures and paperwork and reducing reliance on paper copies of documents, due to their electronic submission.

4- Optimal use of available human energies within the institution, as it becomes easy to direct human energies to work on more productive tasks and jobs.

5- Increased level of job performance, through the smooth transfer of information and reduced duplication in data entry, and saving time to complete procedures.

6- Distinctive public services, as all services can be provided through the Internet around the clock, and without being restricted by official working hours.

7- Rationalization of the workforce, as the application of electronic management saves the burdens of large numbers of individuals affiliated with the institution who drain the institution's treasury in salaries and incentives paid to them.

8- Linking the institution's departments and sections with electronic means of communication that ensure ease of communication between them and improving performance within them, and communication with other parties.

9- Using modern technologies to improve and develop services provided to citizens and employees.

10- Reducing the time required to implement various administrative transactions.

11- Reducing costs as a result of simplifying procedures.

12- Ease of objective evaluation of employee performance and developing an advanced system to identify defaulters.

Given the importance of e-management, many previous researches and studies have focused on it, as well as its mechanisms and obstacles to

its application in various sectors, as Hanan Muammar Abu Ajila Al-Abani's study (2015) aimed to know the impact of human resources training on the success of the application of e-management. The study consisted of a sample of employees at the main Aman Bank, where the researcher used the descriptive approach, and a random sample of employees in other departments was selected to know their point of view. The results of the study concluded that there is a clear deficiency in the participation of human resources in training programs at the bank. The results of the study also concluded that the level of application of e-management is average, as the bank does not rely on Internet technologies in providing services to customers. The study recommended the need to support and endorse senior management for the application of e-management, and the need to develop training programs at the bank to follow up on technical developments and benefit from them in providing services at the bank.

Qureshi's study (2015) also addressed the question: Can we make a better world with information and communication technology through development research in the field of using electronic systems and providing administrative information to employees and the resulting improvement in job performance and decision-making by providing this information and data, through an electronic system within the institution. Roberts (2015) was interested in studying the impact of using electronic systems and classifying the initiatives of these systems and the resulting social impacts of using computer systems, as the researcher used the descriptive approach, and the results of the study reached the impact of applying electronic management in developing countries. The study of Amirouche Bouchlaghem (2017) dealt with the requirements for applying e-management in Algerian universities, the mechanisms for applying e-management, and the obstacles to its application, with the aim of developing administrative work, as the researcher used the descriptive approach, and the results of the research reached a list of theories and foundations for applying e-management in Algerian universities, and a presentation of e-management in its various forms, and revealing the most important obstacles facing the application of e-management in Algerian universities, and the research concluded

by presenting a set of recommendations and proposals to senior management in Algerian universities for mechanisms for applying e-management and revealing its obstacles.

The study of Soham Badi (2018) dealt with the role of organizational culture in activating the application of e-management in libraries and information centers in the Hashemite Kingdom of Jordan, clarifying the concept of e-management and stating its dimensions and verifying the relationship between organizational culture and e-management, and the study concluded with an emphasis on the role of training, increasing electronic communication channels, completing electronic work, and shifting to the electronic work method and making administrative decisions within electronic work systems in activating e-management. Khaled Al-Nour's study (2018) also addressed the impact of management information systems on employee performance, a case study of the Environmental Studies Center in Doha, Qatar (2012-2017 AD). The problem of the study was that there is no knowledge of the role of management information systems in achieving the required accuracy of information and the required quantity and its arrival at the appropriate time, in addition to its components and performance in order to reach a good level of employee performance. The study followed the descriptive analytical approach in addition to the historical approach. The study reached a number of results, including that employee performance evaluation is done periodically, as it derives its information from system databases, and therefore is a fair evaluation and is free of personal motives of managers towards their subordinates, which often occurs in the case of manual evaluation. Employees are motivated in a fair manner based on the volume of work accomplished and the innovations and solutions they provide in their work, which prompts them to improve their performance, which leads to improving the overall performance of the Interdisciplinary Studies Center in Doha. In light of the study results, the researcher presented a number of recommendations, the most important of which are: Attention must be paid to adequate training for employees at the Doha Interdisciplinary Studies Center on the proper use of information systems in order to enable them to benefit from them in developing their performance and

thinking styles. Focus must be placed on the effectiveness of the systems used at the Doha Interdisciplinary Studies Center and maximum benefit from them, which will increase production and productivity.

While the study of Anas Talal Ali Al-Amaira (2020) aimed to demonstrate the impact of applying e-business on the performance of small and medium-sized enterprises in the Hashemite Kingdom of Jordan, the study relied on the descriptive analytical approach, and in order to collect data and achieve the study objectives, the researcher created and developed a special questionnaire consisting of (32) paragraphs, which was distributed to the study sample, numbering (150) managers and decision-makers in small and medium-sized enterprises that are members of the Production Association. The results of the study showed a high degree of satisfaction of managers and decision-makers with the application of e-business represented by its dimensions (customer service management system, accounting information systems, human resources management systems, marketing information systems) in performance in its dimensions (efficiency, effectiveness) in small and medium-sized enterprises. The study recommended the necessity for institutions to carry out their daily operations electronically. And to focus on training employees to use the devices and software specific to their systems on an ongoing basis. In addition to receiving all employment applications electronically. The researcher also recommended expanding the study of additional new dimensions of e-business in the future. The study of Amani, Rahab, & Ziani, Amqran. (2024) indicated the role of e-management in raising the financial performance of the Social Security Fund (Mila), as this study addressed the following main question: How does e-management contribute to raising the financial performance at the level of the Social Security Fund for the Non-Employees (Mila)? In order to achieve the goal of the study, the questionnaire was distributed to a sample of 30 employees expressing their opinions, which included two main axes: The first axis represents the personal data of the sample members and the independent variable (dimensions of e-management) and measures the dimensions of: electronic planning, electronic organization,

electronic control, computer and its accessories and databases, software, while the second axis is related to the dependent variable (financial performance). After processing the data, a conclusion was reached that the dimensions of e-management positively affect the financial performance of the National Social Security Fund. The study of Eng. Bushra Abdul Ibrahim, & Prof. Dr. Arej Saeed Khalil also indicated. (2024) To the role of electronic management in facilitating the financial control process, explaining how modern technology contributes to improving the efficiency and effectiveness of financial control operations in institutions. To achieve the objectives of the study, the Algerian Telecommunications Corporation was chosen as a sample for the research and 39 questionnaires were distributed. Through this research, several conclusions were reached, the most important of which is that electronic management allows the implementation of strict security procedures to protect financial data from breaches and cyber-attacks. Financial control depends on these procedures to ensure the integrity of financial data and maintain its confidentiality. The research came out with a set of recommendations, the most important of which is the interest in applying modern means in electronic management and training employees to use new technologies and benefit from them effectively. The study of Al-Nashwa, & Sari Ahmed Ibrahim explained. (2024) The impact of e-management on achieving institutional excellence in planning institutions, therefore the current study focused on determining the impact of e-management on achieving institutional excellence in planning institutions by applying it to workers in the Gaza Strip. To achieve the objectives of the study, the descriptive analytical approach was used, and a simple random sample was used, as 132 questionnaires were distributed to the study sample. The study recommended the need to work on training human cadres, especially training related to modern technologies and programs, which contributes to keeping pace with development and achieving the goals of the institution, and working on continuous evaluation of the performance of workers in addition to evaluating devices and carrying out the necessary development procedures, which achieves rapid development and growth.

5- ٥-Field study:

٥/١-Study community and sample:

-The study community consists of a random sample of (30) workers in the education sector in Kafr El-Sheikh Governorate.

٥/٢-Experimental treatments:

Digital content via an electronic system that works via the web that provides e-learning tools to develop digital research skills, e-management skills, and web services usage skills and making it available to members of the experimental group of workers in the education sector.

٥/٣-Determine the foundations for building the proposed electronic system through:

-Preparing a list of general and behavioral objectives for the electronic system to enhance the job performance of employees in the education sector.

-Preparing a list of digital research skills for employees in the education sector.

-Preparing a list of e-management skills for employees in the education sector.

-Preparing a list of web service usage skills for employees in the education sector.

٥/٤-Building the electronic system:

-Applying the stages of Muhammad Attia Khamis's (2007) model for design and development, passing through the following stages:

(١)Analysis stage: This is done by analyzing the problem and estimating needs, choosing appropriate solutions and programs, analyzing tasks, analyzing employee characteristics and their input

behavior, cost and return analysis, analyzing resources and constraints in the system.

(٢)Design stage: This is done by identifying procedural objectives for digital content and designing training strategies, designing interactive and control strategies, choosing multimedia, identifying media specifications and standards, designing path maps, designing event panels and interaction interfaces, and designing scenarios.

(٣)Development stage: This is done through planning and preparing for production, obtaining digital sources, coding the electronic system, collecting media and producing the initial version of the system, structural evaluation of the initial version, modifying the initial version and final production of the system, registering property rights, preparing the user manual and the required auxiliary materials.

(٤)Final evaluation stage: This is done through determining the appropriate experimental design, preparing the program and its accessories and measurement tools, preparing instructions and pre-application of the tools, testing the system in real situations, post-application of the tools on the research sample, monitoring and statistically processing the results, analyzing, discussing and interpreting the results.

-Developing the work system (electronic system) to suit the nature of the study.

-Approving the proposed system by presenting it to arbitrators and experts in the field of information systems and making the necessary modifications.

٥/٥-Preparing the study tools, which are:

The researchers prepared the following tools to achieve the goal of the study:

1- Preparing achievement tests to measure the cognitive aspects of the skills (digital research, electronic management and use of web services.

2- Preparing observation cards for the performance aspect of the skills (digital research, electronic management and use of web services.

The researchers did the following:

•Verifying the validity and reliability of the tools.

•Presenting the tools to a group of experts and specialists in the field of information systems to ensure their suitability for application, and making the necessary modifications.

٥/٦-Conducting the exploratory study, which includes:

1- .٣Selecting a sample of (30) education sector workers in preparation for conducting the exploratory experiment.

2- .٤Conducting the exploratory experiment and adding modifications in light of its results.

٥/٧-Conducting the basic experimental study, which includes:

1- Selecting the basic research sample, which consists of (30) workers in the education sector - Kafr El-Sheikh Governorate.

2- Applying the research tools pre-experimentally to the experimental research sample.

3- Applying the experimental treatments and applying the electronic system via the web to the research sample.

4- Applying the research tools post-experimentally to the research sample.

5- Monitoring, analyzing and processing the results statistically: using appropriate statistical methods.

From the first hypothesis which states "There is a statistically significant difference at a significance level of $0.05 \geq \alpha$)) between the average scores of the experimental research group in the pre- and post-measurement, on the achievement test to measure the cognitive aspect of digital research skills, e-management skills and web services usage skills, in favor of the post-measurement."

To test the validity of the hypothesis, the researchers used the T-test to find the significance of the differences between the averages of the pre- and post-measurements of the achievement test, as the following two tables show the result of that

Table (1)

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	1	20.7333	30	4.17656.	.76253
	2	42.4333	30	4.34450.	.79319

Looking at the two tables (1) and (2), a statistically significant difference was found between the pre- and post-measurements in the achievement test in favor of the post-measurement, as the average scores of the research group in the post-test reached (42.4333), while the average scores of the research group in the pre-test reached (20.7333). Accordingly, the first hypothesis is accepted, which states that "there is a statistically significant difference at a significance level of $0.05 \geq \alpha$)) between the average scores of the experimental research group in the pre- and post-measurement, on the achievement test to measure the cognitive aspect of digital research skills, electronic management skills, and web services use skills, in favor of the post-measurement." From the second hypothesis which states that "there is a statistically significant difference at a significance level of $0.05 \geq \alpha$)) between the average scores of the experimental research group in the pre- and post-measurement on the observation card of the performance aspect of digital research skills in favor of the post-measurement.

To test the validity of the hypothesis, the researchers used the T-test to find the significance of the differences between the averages of the pre- and post-measurements on the observation card of the performance aspect of digital research skills, as the following two tables show the result of that

Table (2)

Paired Samples Test									
		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	1 - 2	-21.70000-	6.35257	1.15982	-24.07209-	-19.32791-	-18.710-	29	.000

Looking at the two tables (1) and (2), a statistically significant difference was found between the pre- and post-measurements in the achievement test in favor of the post-measurement, as the average scores of the research group in the post-test reached (42.4333), while the average scores of the research group in the pre-test reached (20.7333). Accordingly, the first hypothesis is accepted, which states that "there is a statistically significant difference at a significance level of 0.05≥α)) between the average scores of the experimental research group in the pre- and post-measurement, on the achievement test to measure the cognitive aspect of digital research skills, electronic management skills, and web services use skills, in favor of the post-measurement".

From the second hypothesis which states that "there is a statistically significant difference at a significance level of 0.05≥α)) between the average scores of the experimental research group in the pre- and post-measurement on the observation card of the performance aspect of digital research skills in favor of the post-measurement. To test the validity of the hypothesis, the researchers used the T-test to find the significance of the differences between the averages of the pre- and post-measurements on the observation card of the performance aspect of digital research skills, as the following two tables show the result of that

Table (3)
Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	1	23.5000	30	5.80576	1.05998
	2	56.5667	30	4.24819	.77561

Table (4)

Paired Samples Test									
		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	1 - 2	-33.06667-	7.78120	1.42065	-35.97222-	-30.16112-	-23.276-	29	.000

Looking at Tables (3) and (4), a statistically significant difference was found between the pre- and post-measurements in the observation card of the performance aspect of digital research skills in favor of the post-measurement, as the average scores of the research group in the post-measurement reached (56.5667), while the average scores of the research group in the pre-test reached (23.5000). Accordingly, the second hypothesis is accepted, which states: "There is a statistically significant difference at a significance level of $0.05 \geq \alpha$)) between the average scores of the experimental research group in the pre- and post-measurement, on the achievement test to measure the cognitive aspect of digital research skills, electronic management skills, and web services use skills, in favor of the post-measurement".

From the third hypothesis, which states that there is a statistically significant difference at a significance level of $0.05 \geq \alpha$)) between the average scores of the experimental research group in the pre- and post-measurement on the performance aspect observation card for electronic management skills, in favor of the post-measurement. To test the validity of the hypothesis, the researchers used the T-test to find the significance of the differences between the averages of the pre- and post-measurements on the performance aspect observation card for electronic management skills, as the following two tables show the result of that

Table (5)
Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean

Pair 1	1	19.3000	30	4.66942	.85251
	2	39.4333	30	3.00211	.54811

Table (6)
Paired Samples Test

		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	1 - 2	-20.13333-	6.03286	1.10144	-22.38604-	-17.88063-	-18.279-	29	.000

Looking at tables (5) and (6), a statistically significant difference was found between the pre- and post-measurements in the performance aspect observation card for e-management skills in favor of the post-measurement, as the average scores of the research group in the post-measurement reached (39.4333), while the average scores of the research group in the pre-test reached (19.3000). Accordingly, the third hypothesis is accepted, which states that there is a statistically significant difference at a significance level of $0.05\geq\alpha$)) between the average scores of the experimental research group in the pre- and post-measurement on the performance aspect observation card for e-management skills, in favor of the post-measurement.

From the fourth hypothesis, which states that there is a statistically significant difference at a significance level of $0.05\geq\alpha$)) between the average scores of the experimental research group in the pre- and post-measurement on the performance aspect observation card for web services use skills, in favor of the post-measurement.

To test the validity of the hypothesis, the researchers used the T-test to find the significance of the differences between the averages of the pre- and post-measurements in the observation card of the performance

aspect of web services usage skills, as the following two tables show the result of that:

Table (7)

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	1	12.5000	30	2.83756	.51806
	2	20.5000	30	1.99569	.36436

Table (8)

Paired Samples Test									
		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	1 - 2	-8.00000-	9.24812	.61026	-9.24812-	-6.75188-	-13.109-	29	.000

Looking at Tables (7) and (8), a statistically significant difference was found between the pre- and post-measurements in the observation card of the performance aspect of web services skills in favor of the post-measurement, as the average scores of the research group in the post-measurement reached (20.5000), while the average scores of the research group in the pre-test reached (12.5000). Accordingly, the fourth hypothesis is accepted, which states that there is a statistically significant difference at a significance level of $0.05 \geq \alpha$)) between the average scores of the experimental research group in the pre- and post-

measurement on the observation card of the performance aspect of web services skills, in favor of the post-measurement.

6- Drawing conclusions

The results of the current research on "The effect of applying an electronic system via the web on the job performance of workers in the education sector in Kafr El-Sheikh Governorate" came based on statistical analysis using the T-test to measure the differences between the average scores of the experimental research group in the pre- and post-measurements. The results indicate that there are statistically significant differences in favor of the post-measurements in various aspects of the measured skills, which confirms the effectiveness of the electronic system in improving job performance.

1- The cognitive aspect of digital research skills, e-management skills, and the use of web services:

- A statistically significant difference was found at a significance level of $0.05 \geq \alpha$ between the pre- and post-measurements in favor of the post-measurement.
- The average scores of the research group in the post-test were (42.4333) compared to the average scores of the pre-measurement (20.7333). This indicates a significant improvement in the cognitive aspect of digital research skills, e-management skills, and the use of web services after implementing the electronic system.

2- The performance aspect of digital research skills:

- Data analysis showed a statistically significant difference in favor of the post-measurement at a significance level of $0.05 \geq \alpha$.
- The average scores of the research group in the post-measurement were (56.5667) compared to the average scores in the pre-measurement (23.5000), which indicates an improvement in actual performance in digital research skills after implementing the system.

3- The performance aspect of e-management skills:

- The results showed a statistically significant difference between the two measurements in favor of the post-measurement, as the average scores of the research group in the post-measurement were (39.4333) compared to the pre-measurement (19.3000.(
- This indicates a positive impact of applying the electronic system in improving the e-management skills of employees.

4- The performance aspect of web services usage skills:

- A statistically significant difference was also found in favor of the post-measurement at a significance level of $0.05 \geq \alpha$.
- The average scores of the post-measurement were (20.5000) compared to the pre-measurement (12.5000), indicating that applying the electronic system significantly improved the skills of using web services among employees.

Conclusion: Based on the results, it can be said that applying the electronic system via the web had a positive and noticeable impact in improving the job performance of employees in the education sector in Kafr El-Sheikh Governorate, whether on the cognitive or performance side of digital research skills, e-management, and the use of web services.

Providing recommendations and suggestions:

In light of the research results.

Based on the results of the study, which showed a positive impact of applying the electronic system via the web on the job performance of employees in the education sector in Kafr El-Sheikh Governorate, the following recommendations can be made:

1- Activating the role of civil society organizations.

- It is recommended to activate the role of civil society organizations in trying to provide additional material means that help implement electronic systems in various educational institutions.

2- Generalizing the use of the electronic system:

- It is recommended to apply the electronic system via the web in various educational institutions to improve job performance and increase the efficiency of employees in the fields of digital research, electronic management, and the use of web services.

3- Training employees to use electronic systems:

- o It is recommended to provide intensive training programs for employees in the education sector to enhance their skills in using electronic systems and applying them effectively in daily work, with a focus on digital and administrative skills.

4- Developing the technological infrastructure:

- o It is recommended to improve and develop the technological infrastructure in educational institutions to ensure the efficiency of electronic systems and to maximize their benefit.

5- Supporting research and development in the field of e-government:

- It is recommended to encourage continuous scientific research in the field of e-government and digital research to update and develop systems in line with rapid technological developments.

6- Conducting future studies

- To evaluate the impact of implementing new electronic systems in other areas such as e-learning and human resources management, in order to expand the scope of use of digital systems.

7- Encouraging the use of web services in the educational process:

- It is recommended to enhance the use of web services in the educational process, whether by employees or students, to improve the level of academic achievement and increase effectiveness in communication and learning.

8- Providing continuous technical support:

- It is recommended to provide continuous technical support to employees to ensure the smooth use of electronic systems and address any technical problems that may arise during work.

9- Periodic measurement and analysis of performance:

- oIt is recommended to conduct periodic evaluations of job performance after implementing electronic systems to measure the extent of improvement and identify aspects that need additional improvement.

These recommendations aim to enhance work efficiency and achieve maximum benefit from electronic systems in improving the quality of the educational and administrative process in the education sector.

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Study Appendices

Appendix (1)

List of goals

The general objectives of the electronic system to enhance the job performance of workers in the education sector:

M	Overall Objective
1	▪ Education professionals use digital search tools correctly to search for topics related to their job specialization.
2	▪ education sector Applying the employees to the electronic management system according to their job specialization.
3	▪ Use web applications and services in a correct manner in developing functionality.

List of behavioral goals:

Overall Objective	Behavioral (procedural) goals	Target Level					
		calendar	installation	analysis	application	understanding	remember
(a) Use digital research tools for research related to the functional specialization	That deduces the concept of search engine.					√	
	To list examples of search engines.						√
	To illustrate the benefits of search engines in a correct way.					√	
	It decides	√					

	which search engines can use it to serve its functionality.						
	To deal with the Google search engine in a correct way .				√		
	To analyze the stages of searching for information related to his job specialization using the search engine.			√			
	To differentiate between search engines available over the Internet.			√			
	To distinguish between forms of data that can be searched for on the Internet without error.			√			
	To know what is meant by databases.						√
	To deal with the databases in a correct way.				√		

Overall Objective	Behavioral (procedural) goals	Target Level					
		calendar	installation	analysis	application	understanding	remember

					n		
(b) **Applying the electronic management system according to the job specialization**	To know the concept of electronic management.						√
	To explain the benefits of electronic management in the development of his job specialization.					√	
	To distinguish the functions of electronic administration.						√
	To deal with financial management and electronic spreadsheet programs.				√		
	To deal with records and documents electronically.				√		
	To deal with personnel affairs electronically.				√		
	To deal with student affairs tasks electronically.				√		
	To know the concept of electronic management.						√
	To explain the benefits of electronic management in the development of his job specialization.					√	

	To distinguish the functions of electronic administration.						√

Overall Objective	Behavioral (procedural) goals	Target Level					
		calendar	installation	analysis	application	understanding	remember
(c) Using web applications and services in a correct manner in developing job performance.	To know the concept of email.						√
	To analyze the stages of creating a free e-mail.					√	
	To deal with e-mail in sending and receiving messages in a correct manner.						√
	To deduce the concept of social networking sites.				√		
	To deal with social networking sites in the service of his job specialization.				√		
	To enumerate social networking sites.				√		
	To know the concept of email.				√		
	To analyze the stages of creating a free e-mail.						√
	To deal with e-mail in sending and receiving messages in a correct manner.					√	
	To deduce the concept of social networking sites.						√

2- Skills List

List of skills to develop job performance for workers in the education sector

Main Skill	Sub-Skills and their Procedures
(1) **Digital Research Skills**	**(1-1) Run Google using the link http://www.google.com**
	(1-1-1) It opens an Internet browser.
	(1-1-2) The address of the site shall be written in the address bar.
	(1-2) Google can be used to search for books with PDF extension.
	(1-2-1) Open the Internet browser.
	(1-2-2) to download the Google website.
	(1-2-3) The address to be searched for should be written in the search box followed by the PDF extension .
	(1-2-4) Press the search button.
	(1-3) Google is used to search for images with the JPEG extension.
	(1-2-1) Open the Internet browser.
	(1-2-2) to download the Google website.
	(1-2-3) Write the name of the image to be searched for in the search box followed by the extension JPEG.
	(1-2-4) Press the search button.

Main skill	skills and their procedures-Sub
(1) **adherent Digital Research Skills**	**(1-4) Create an account on the Knowledge Bank.**
	(1-4-1) Access the link WWW.Ekb.Eg
	(1-4-2) Click on the New User button.
	(1.4.3) Entry of personal data.
	(1-4-4) Entering functional data.
	(1-4-5) Enter the account confirmation data and then press the send button
	(1-4-6) Account Activation and Password Change
	The Knowledge Bank should be (١-٥) .in the search for information used
	(1-5-1) WWW.Ekb.Eg.
	(1-5-2) Click on "Login".
	(1-5-3) Enter your username and password.
	(1-5-4) Enter the address to be searched for in the academic search engine.
	(1-5-5) Selection of sources to be researched.
	(1-5-6) Click on the "Search" button.

Main skill	skills and their procedures-Sub
(2) **E-Management Skills**	(2-1) Electronic spreadsheet software is used to deal with financial management.
	(2.1.1) Creates a new worksheet using spreadsheet software.
	(2-1-2) Enters data into the worksheet using the keyboard
	(2-1-3) uses arithmetic functions such as

	Sum, Average, Max, Min.
	(2.1.4) Write the arithmetic formulas correctly.
	(2-1-5) Save the file using the Save command.
	(2-2) The text coordinator software is used to handle documents electronically.
	(2.2.1) Creates a new document.
	(2-2-2) enters data for a document using the keyboard.
	(2-2-3) coordinates data (font size - font color - font style).
	(2-2-4) The document shall be saved using the command Save.
	(2-3) Access is used to deal with personnel affairs electronically.
	(2-3-1) Creates a new Data Base file.
	(2-3-2) Designs a table of 9 fields.
	(2-3-3) Enters the personnel data into the table from the keyboard.
	(2-3-4) creates a Form form.
	(2.3.5) Creates a Report.
	(2-3-6) Save the file using the Save command.

Main skill	skills and their procedures-Sub
(2) adherent E-Management Skills	(2-4) The text coordinator program is used to deal with student affairs records electronically.
	(2.4.1) Creates a new document.
	(2.4.2) Insert a table consisting of 5 rows and seven columns.
	(2-4-3) Students enter data with a document using the keyboard.
	(2-4-4) Modifies the data of the entered students.
	(2-4-5) The document shall be saved using the command Save.

Main skill	skills and their procedures-Sub
(3) Skills of use Web Services	(3-1) Uses the email service.
	(3-1-1) creates a free mail account using Gmail .
	(3-1-2) Open the e-mail account and view the inbox inbox .
	(3-1-3) sends an e-mail to the educational administration.
	(3-1-4) Attach files and pictures with the e-mail message.
	(3-2) Uses the social networking site FaceBook.
	(3-2-1) creates an account on the FaceBook Site.
	(3-2-2) Opens the administration page on FaceBook
	(3-2-3) sends an email via the Messenger application.
	(3-2-4) creates a group for its section on the FaceBook site.

Appendix (3)

Note card to measure the performance aspect

Job performance development skills for workers in the education sector

Employee Data
Name: .....
Employer: .....
Section:.....
Mobile Number :

Purpose of the card:

This card aims to observe the skills of developing job performance for workers in the education sector

Card usage instructions:

Dear observer, in order to be able to notice the skills of web design, you must follow the following:

1. This card consists of (3) main skills divided as follows:-

أ- The first main skill contains (5) sub-skills.

ب- The second main skill contains (4) sub-skills.

ج- The third main skill contains (2) sub-skills.

2. In order for the skill to be fully realized, all its steps must be performed .

3. Each skill performed by the employee is calculated as one degree and these grades are collected and monitored and this degree is the degree of skill performance, as the total score(degree.)

4. The time of performing skills with the observation card is (45) minutes.

5. The card consists of three digits:

- The first: the main skill.
- Second: Sub-skills and their procedures.

• Third: Performance levels are divided into four boxes: :(performed correctly on time, performed correctly in other than the specified time, performed with assistance, did not perform)

6. Please mark √ in front of the appropriate level of employee performance.

Grade Estimation:

1. An employee gets (0) if he does not perform the skill.

2. The employee receives (1) grade if he performs the skill with assistance.

3. The employee gets (2) a score if he performs the skill alone and without assistance correctly in a time other than the specified time.

4. The employee gets (3) degrees if he performs the skill alone and without assistance correctly on time.

Note card to measure the performance aspect

Job performance development skills for workers in the education sector

Main skill	Sub-skills and their procedures	Performance level			
		Not performed	Led with the help of	Performed correctly in other than the specified time	Performed correctly on time
(1) Digital Research Skills	**(1-1) Launch Google using the link http://www.google.com**				
	Opens the internet browser.				
	(1-1-2) Write the address of the site in the address bar.				
	Use Google to search for books by PDF extension.				
	(1-2-1) opens the Internet browser.				
	(1-2-2) Downloads the Google website.				

	(1-2-3) Write the address to be searched for in the search box followed by the PDF extension .				
	(1-2-4) Press the search button.				
	Use Google to search for images with the JPEG extension.				
	(1-2-1) opens the Internet browser.				
	(1-2-2) Downloads the Google website.				
	(1-2-3) Write the name of the image to be searched for in the search box followed by the extension JPEG.				
	(1-2-4) Press the search button.				

Main skill	Sub-skills and their procedures	Performance level			
		Not performed	Led with the help of	Performed correctly in other than the specified time	Performed correctly on time
(1) adherent	**Create an (٤-١) account on Knowledge Bank.**				

Digital Research Skills	(1-4-1 WWW.Ekb.Eg				
	(1-4-2) Press the New User button.				
	(1.4.3) Writes personal data.				
	(1-4-4) Writes employment data.				
	(1-4-5) Enter the account confirmation data and then press the Send button				
	(1-4-6) Activate the account and change the password				
	Using the (٥-١) knowledge in bank searching for .information				
	(1-5-1) WWW.Ekb.Eg.				
	(1-5-2) Click on "Login".				
	(1-5-3) Enter your username and password.				
	(1-5-4) Enter the address to be searched for in the academic search engine.				
	(1-5-5) Selects the sources to be researched.				

	(1-5-6) Press the "Search" button.				

Main skill	Sub-skills and their procedures	Performance level			
		Not performed	Led with the help of	Performed correctly in other than the specified time	Performed correctly on time
(2) E-Management Skills	**(2-1) Using the electronic spreadsheet software to deal with financial management.**				
	(2.1.1) Creates a new worksheet using spreadsheet software.				
	(2-1-2) Enters data into the worksheet using the keyboard				
	(2-1-3) uses arithmetic functions such as Sum, Average, Max, Min.				
	(2.1.4) Writes arithmetic formulas correctly.				
	(2-1-5) The file is saved using the Save command.				

	(2-2) Using a text formatting program to handle documents electronically.				
	(2.2.1) Creates a new document.				
	(2-2-2) enters data for a document using the keyboard.				
	(2-2-3) coordinates data (font size - font color - font style).				
	(2-2-4) The document shall be saved using the command Save.				
	(2-3) Using Access to deal with personnel affairs electronically.				
	(2-3-1) Creates a new Data Base file.				
	(2-3-2) Designs a table of 9 fields.				
	(2-3-3) Enters the personnel data into the table from the keyboard.				
	(2-3-4) creates a Form form.				
	(2.3.5) Creates a Report.				
	(2-3-6) Save the file using the Save command.				

Main skill	**Sub-skills and their procedures**	**Performance level**			
		Not performed	Led with the hel	Performed correctly in other than the	Performed correctly on time

			p of	specifie d time	
(2) adherent E-Managemen t Skills	**(2-4) Using the text coordinator program to deal with student affairs records electronically.**				
	(2.4.1) Creates a new document.				
	(2.4.2) Insert a table consisting of 5 rows and seven columns.				
	(2-4-3) Students enter data with a document using the keyboard.				
	(2-4-4) Modifies the data of the entered students.				
	(2-4-5) The document shall be saved using the command Save.				

Main skill	**Sub-skills and their procedures**	**Performance level**			
		Not perfor med	Led wit h the help of	Perfor med correctl y in other than the specifie d time	Perf orme d corre ctly on time
(3)	**(3-1) Use of the Email service.**				
Skills of	(3-1-1) creates a free mail account				

use Web Services	using Gmail .				
	(3-1-2) Open the e-mail account and view the inbox inbox .				
	(3-1-3) sends an e-mail to the educational administration.				
	(3-1-4) Attach files and pictures with the e-mail message.				
	(3-2) Use of the social networking site FaceBook.				
	(3-2-1) creates an account on the FaceBook Site.				
	(3-2-2) Opens the administration page on FaceBook				
	(3-2-3) sends an email via the Messenger application.				
	(3-2-4) creates a group for its section on the FaceBook site.				

Accessory(4)

Achievement Test

To measure the cognitive aspect of job performance development skills for workers in the education sector

Objective of the test

This test aims to measure the cognitive aspect of the job performance development skills of workers in the education sector.

((Test Instructions))

This test consists of (50) questions of the objective type divided as follows:

- (25) multiple choice questions.
- (25) questions right or wrong.
- Please read the statements of the test questions carefully before answering them.
- Each of the multiple-choice questions has four answers that take the letters (A, B, C, D) only one of which is correct.
- Each of the multiple-choice questions is followed by only one correct answer Put a √ in front of the correct answer in the multiple-choice questions .
- Put a sign (√) in front of the correct answer or a sign (×) in front of the wrong statement in the right and wrong questions.
- A score of (1) is calculated if the answer is correct, and (0) if the answer is wrong.
- The maximum end of the test scores is (50) points.
- Please do not put more than one √ mark in front of each question.
- Please don't use guesswork in your answer because it detracts from your score.
- Answer carefully and adhere to the specified test time.
- The test time is (25) minutes.
- This test is intended for scientific research purposes only and its grades are not included in any results, estimates, promotions, features or financial discounts.

Sample Multiple Choice Question:-

1- search engine You can search for books in the Google ...using the

أ- JPEG b- MP3

C- PDF D- WAV

Sample Answer:-

Q1	A	in	C	D
			√	

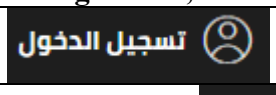
Sample True and False Questions

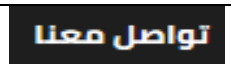
1- You can log in to the Egyptian Knowledge Bank from outside Egypt with reduced fees ( )

Sample Answer:-

١Q	×

First: Multiple Choice Questions

1	**It is considered one of the most popular search engines for the simplicity of its .ease of use interface and**
	أ- Yahoo
	ب- FaceBook
	ج- Google
	د- Twitter
2	**To create an account on the Egyptian .....Knowledge Bank, click on the icon**
	أ- 
	ب- 

	ج- 
	د- 
3	 **The previous figure is one of the components of the main page of the Knowledge Bank and represents**.....
	أ- Knowledge Bank resources.
	ب- Search boxes.
	ج- Functional data.
	د- .Knowledge Bank portals
4	**To save the open document we use the ....command**
	أ- Save
	ب- Print
	ج- Open
	د- Insert

5	**The Egyptian Knowledge Bank website can .be accessed through the link**

	
	أ- https://www.ekb.com
	ب- https://www.emb.com..
	ج- https://www.ekb.eg.
	د- https://www.emoe.gov.
6	**images using the Google search To get ...engine the extension is used**
	أ- XLS
	ب- JPEG
	ج- DOC
	د- PPT
7	**To access books and periodicals in the Bank in English only through the Knowledge ....list**
	أ- 
	ب- 
	ج- 
	د- 
8	**To deal with the financial affairs of employees electronically, we use the program ...**
	أ- Power Point
	ب- Word
	ج- Excel

	د- Access

ب-	أ- 	
	ج- 	
	د- 	

12	**It is a Saudi library that allows searching in .Arabic in the Knowledge Bank**
	أ- 
	ب- 
	ج- 

	د-
13	**To add a table in Word text formatting program ...we use the**
	أ- Insert
	ب- Print
	ج- File
	د- Open
14	**The ..... function is used inExcel.to combine**
	أ- Count
	ب- Sum
	ج- Add
	د- Average
15	**The social networking site Face Book allows**
	أ- Create a new group.
	ب- Write comments.
	ج- Upload documents.
	د- .All of the above

16	**The Encyclopedia Britannica contains a number of ..... Electronic products.**

	
	أ- Three products.
	ب- Four products.
	ج- Five products.
	د- .Six products
17	**Video tutorials can be viewed from a .....source**
	أ- 
	ب- 
	ج- 
	د- 
18	**The arithmetic formula inExcel begins with .....a mark**
	أ- (=)
	ب- (<)

	ج- (+)
	د- (/)

19	**called the public portal and allow That is, the portals are .readers to see many sources**
	أ- 
	ب- 
	ج- 
	د- 
20	**After completing the amendment of personal data in the Knowledge Bank, the button is pressed.....**
	أ- Send.
	ب- Conservation.
	ج- Open.
	د- .Modulation
21	**The Knowledge Bank includes one of the following systems to support the documentation of scientific content**
	أ- Self-learning system.

	ب- SYSTEM IEEE.
	ج- LMS.
	د- Electronic journal management, indexing and archiving system
22	**Employee data is entered into Access by .....**
ب-	أ- Form
	ج- Table Table
	د- (A, B) together
	ه- Report
23	 **Previous icons show examples of .....**
	أ- Text Coordinators Programs
	ب- Database software.
	ج- Arithmetic spreadsheet software.
	د- .Internet browsers
24	**To change the font type and size in Word text formatter we .use the tab**
	أ- Home
	ب- Insert
	ج- Page Layout
	د- View
25	**....Each page in Excel is called**
ب-	أ- Work Book
	ج- Document
	د- Work Sheet
	ه- Data Base

Second: Questions of Right and Wrong:

Determine which of the following statements is true and which is false

27- .mail with them-All websites allow the creation of an e – ( )
28- .The Knowledge Bank website can be opened from outside Egypt ( )
29- Photos and documents can be searched using theGoogle. ( )
30- mail through the service-Files can be attached when sending an eEmail. ( )
31- The user interface of the Egyptian Knowledge Bank cannot be changed to English. ( )
32- Passwords are circulated between employees of the same department to) facilitate access to information( )
33- Use the functionMax n the programTo calculate the arithmetic mean i Excel. ( )
34- The Egyptian Knowledge Bank website is free and does not require any .fees ( )
35- The password to login to the Knowledge Bank is changed through the list of sources. ( )
36- to print The printer is one of the output units that enables the user .documents ( )
37- Use the functionMin To count numeric values in a program Excel. ( )
38- One of the most important features of electronic management is linking the .ectronic meansdepartments of the institution by el ( )
39- The model is consideredFormIt is the basic design of the personnel .database ( )
40- an once for the same You can register on the Knowledge Bank more th .person ( )
41- Each row in the database is calledRecord While the column is called Field. ( )

42- To open a previously saved document we use the commandOpen From a listFile. ( )

43- academic Search results and number of pages appear when using the .search engine) ( )

44- When creating an emailEmailcharacters ٦Password can be less than ( )

45- Student Affairs data can be entered using theMS. Word. ( )

46- .The user's account in Knowledge Bank cannot be upgraded ( )

47- .four gates The Knowledge Bank has ( )

48- .All job data must be filled in the ADB registration form ( )

49- There are no social networking sites exceptFacebook. ( )

50- One of the requirements for the application of electronic management is .electronic security the availability of confidentiality and ( )

51- Report can be printed Report with the data of the employees of the program MS. Access. ( )

52- ((Questions End)

Multiple choice answer sheet

Name:..... Employer..... Section:.....

Question number	Answers			
	A	IN	C	of
1				
2				
3				
4				
5				
6				

7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

Answer sheet of right and wrong questions

number Question	Answers	
	Wrong	Correct
26		
27		
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
38		
39		
40		
41		
42		
43		
44		
45		
46		

47		
48		
49		
50		

Form for correcting the cognitive achievement test for job performance development skills for workers in the education sector

First: Answers to multiple choice questions:

Question number	Correct answers			
	of	C	in	A
1		√		
2			√	
3	√			
4				√
5		√		
6			√	
7		√		
8		√		
9			√	
10				√
11				√
12	√			
13				√
14			√	
15	√			
16	√			
17			√	
18				√
19		√		
20			√	

21	√			
22		√		
23	√			
24				√
25		√		

Second: Answers to right and wrong questions:

Question number	Correct answers	
	Wrong answer	Correct answer
26	√	
27	√	
28		√
29		√
30	√	
31	√	
32	√	
33		√
34	√	
35		√
36	√	
37		√
38	√	
39	√	
40		√
41		√
42		√
43	√	
44		√
45	√	

46		√
47		√
48	√	
49		√
50		√

Employee Grade	
Total Grade	**50**