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**| RESEARCH ARTICLE**

## **The Effectiveness of a Training Program Based on Educational Technology Applications in Developing Learning Management Skills among Female English Language Teachers**

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**| ABSTRACT**

The study aimed to investigate the effectiveness of a training program based on educational technology applications in developing learning management skills among English language teachers. To achieve this objective, the researchers employed the experimental method using a one-group design (pre-test and post-test). The study sample consisted of 16 English language teachers in the Directorate of Education for Deir Alla District. The teachers underwent training according to the program, which lasted three weeks, and then the study instrument was applied. The study instrument was an observation checklist designed to measure learning management skills, which consisted of four main areas: managing the educational environment, time management, student behavior management, and organizational and planning management. The results indicated statistically significant differences ( $\alpha=0.05$ ) between the teachers' scores in the pre-test and post-test across all domains and the total score, with the differences favoring the post-test. Based on these findings, the study recommended several actions, including offering similar training programs to teachers across different educational stages, particularly those focused on educational technology applications. Efforts should also be directed toward designing specialized programs to enhance learning management skills in various subjects and providing tools that support the integration of educational technology in schools, such as smartboards, laptops, and e-learning platforms.

**| KEYWORDS**

Training program, educational technology applications, learning management skills, English language teachers

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### **1. Introduction**

Teaching is one of the pivotal processes in building societies and shaping students, as it is a means of transferring knowledge, developing students' skills, and enhancing their values. It is no longer limited to providing information and theoretical content, but rather extends to include the dynamic interaction between the teacher, the student, and the educational content within diverse cultural and social contexts. With the rapid changes witnessed by the world, teaching is facing many new challenges that require the use of innovative methods and effective educational strategies that meet the needs of current and future generations. Considering this process is an urgent necessity in improving the outcomes of the teaching-learning process and enhancing its role in building societies based on knowledge and creativity. English language teaching is a fundamental pillar in modern educational systems, as it contributes to developing students' communication skills at the global level. Teaching this language aims to provide students with the necessary skills in reading, writing, listening, and speaking, which qualifies them to interact effectively within multicultural environments. Teaching this subject also focuses on developing students' ability to think critically and creatively by analyzing the text and using the language in various life situations. Teaching it represents a tool to

enhance opportunities for continuous learning and integration into digital environments, considering this language the language of science and technology (Young, 2016).

The teacher is an essential element in the learning process, as he works to provide an appropriate educational environment that motivates students to interact with knowledge and acquire skills. The teacher works as a guide, mentor, and assistant to students in organizing educational experiences by providing continuous support and implementing effective strategies that encourage students to think critically and solve problems, by understanding different learning methods and adapting them to meet the needs of his students. The teacher can improve the quality of learning and enhance students' ability to adapt to changes and continuous learning by managing learning effectively (Abu Doleh and Zaza, 2022).

Learning management is an essential skill in improving educational quality, ensuring the achievement of educational and pedagogical goals. Learning management includes the teacher's good planning of educational lessons, attention to time management, employing appropriate teaching methods and strategies to meet the multiple needs of students, monitoring student interaction within group work, providing a stimulating educational environment, and providing all the support and guidance students need when they need it. By demonstrating effective control over all of these aspects, the teacher can contribute to improving student participation and increase their interaction with the educational material (Shahada 2020).

Educational technology is one of the most prominent scientific and cognitive developments that have followed the modern era, which has brought about a real revolution in teaching and learning methods and approaches, as it helps improve educational quality by providing advanced educational tools and resources that help teachers and their students access different concepts, information and ideas. It also provides real opportunities for students to interact with the educational material in flexible and attractive ways, and it enables teachers to employ advanced educational strategies based on multimedia and digital platforms. As a result of interaction with modern technologies, educational technology has become one of the basic tools that enhance the learning experience and support educational innovation (Ahmed, 2022).

Educational technology applications in the educational field are diverse, and include a set of tools and techniques that can be used to enhance learning effectiveness, which facilitates the teaching process. The most prominent applications are the smart board, digital educational platforms, distance learning software, simulation programs, and the most widespread are interaction tools such as smart educational applications. These technologies contribute to improving teacher interaction with students, and providing flexible and encouraging learning environments that meet the different needs of students. Educational technology applications also help diversify teaching methods, and present information in innovative and attractive ways that encourage critical thinking, and enhance problem-solving skills (Noriel & Paolo, 2022).

Educational technology applications play a pivotal role in updating teaching methods and enhancing the efficiency of teachers by training them on technology-based strategies and methods, employing training programs that focus on developing learning management skills, training teachers to manage educational situations, and employing educational technology techniques to support the sustainable learning process. Based on the above, researchers' view turned to research the effectiveness of a training program based on educational technology applications in developing learning management skills among English language teachers.

## **2. Study Problem**

Due to technological progress and the modern technologies it has produced in various fields, especially education, which has led to a change and transformation in the traditional teacher's job in giving lessons that depend on the process of indoctrination, there is an urgent need to prepare lessons in an interactive and digital manner, which requires the teacher to acquire skills and knowledge, and the use of technology applications contributes to enriching and enriching the educational teaching environment through what it provides to teachers and students, which has an impact on improving the outcomes of the educational process, so it is employed and activated in a way that ensures simplifying the material or adding new information to students or facilitating the educational process and consolidating skills.

Many previous studies, such as Al-Sarani's study (2023), have recommended building training programs for teachers based on educational technology applications, and Abdel-Haq et al.'s study (2022) showed the necessity of developing learning management skills for teachers.

From the researchers' experience, the basis of the problem lies in the weakness of English language teachers in employing learning management skills effectively within the classroom environment, especially in light of the rapid technological development that has become necessary to adopt modern teaching tools and methods. This weakness is not limited to technical skills only, but extends to the inability to integrate technological applications in a way that achieves learning objectives and enhances students' educational experience. With a review of scientific literature and field practices, it appears that current training programs are often

general and not directed to meet the needs of English language teachers specifically, which leads to a gap between the aspirations of educational development and the requirements of practical reality. Based on the above, researchers' view turned to investigating the effectiveness of a training program based on educational technology applications in developing learning management skills among English language teachers.

### **Study Question 2.1**

**The study answered the following main question:**

- Are there statistically significant differences at the significance level ( $\alpha=0.05$ ) between the average performance of the experimental group members in the pre- and post-scale of the learning management skills observation card attributed to the training program based on educational technology applications?

### **2.2 Study objective:**

To detect the existence of statistically significant differences between the average performance of the experimental group members in the pre- and post-measurement of the learning management skills observation card attributed to (the training program based on educational technology applications).

### **2.3 The importance of the study**

- The importance of the study comes from two main aspects, which are:
- The importance of the current study is represented in the following two aspects:

#### **First: Theoretical importance:**

- It will be a new addition to scientific research, especially to Arab studies related to the topics of educational technology applications in developing learning management skills.
- The importance of the current study is represented in raising the level of awareness of the importance of employing educational technology applications in teaching.
- The current study may contribute to supporting Arab libraries and theoretical literature on the variables of the current study.

#### **Second: Practical importance:**

- It will benefit teachers in drawing their attention to the need to develop learning management skills, so that their teaching is organized and purposeful.
- It will provide those responsible for preparing, qualifying and developing teachers during service in the Ministry of Education with new information and techniques that may contribute to improving the training process and designing training programs using modern training and technological methods.
- This study may contribute to opening the way for decision-makers in the Ministry of Education to hold training courses on how to employ training programs based on educational technology applications in training teachers of various courses.
- It may be useful for planners and implementers of English language teacher programs in the Jordanian Ministry of Education to include educational technology applications in the programs.

### **3. Study terms and their conceptual and procedural definitions**

The terms and procedural definitions of the current study are as follows:

- Training program: "It is an interwoven combination of activities, interactions, experiences and expertise that a group of teachers go through with the aim of helping them develop themselves cognitively and behaviorally" (Al-Ayasrah, 2012: 20).
- The researcher defines it procedurally: It is a set of procedures, activities and educational content that aims to improve teaching practices and develop learning management skills among English language teachers.
- Educational technology applications: "Educational technology applications are the tools, programs and technologies that are used in the educational process to improve the learning experience and enhance the effectiveness of the educational process. These applications include a variety of technological means such as interactive educational software, mobile and telephone applications, electronic platforms for distance education, virtual reality and augmented reality tools, and multimedia such as audio, video and images, simulation and educational games" (Hitimi, 2015, 30).
- The researcher defines it procedurally: English language teachers use a group of technological applications that are employed in teaching female students, including (Nearpod / Kahoot / Wordwall / Mentimeter / Padlet).

- Learning management: "The processes and procedures taken by teachers and instructors to organize and lead the learning and teaching process in a comprehensive manner. Learning management includes designing educational plans and programs, guiding students and organizing educational activities, providing guidance and support to students and evaluating their performance, as learning management aims to achieve a distinguished educational experience that contributes to developing students' skills and abilities and achieving educational goals" (Girgis, 2017, 20).
- The researcher defines it procedurally: It is all the processes and procedures used by English language teachers in organizing the teaching and learning process, and it is represented by four skills: (managing the educational environment, time management, managing student behavior, and managing organization and planning) and it was measured from the observation card that was prepared for that.

#### 4. Conceptual Framework of the Study

Training is "a process based on providing arts, experiences, skills and sciences to individuals, in order to provide them with a service in social institutions, in order to achieve a high level in facing the obstacles they face while implementing professions based on institutional strategies" (Wasous and Al-Jawarneh, 2016: 411).

The training program is defined as "a set of training activities that are designed and prepared in a planned and organized manner in order to provide teachers with a set of skills, knowledge and information in the educational field, at the hands of a qualified group of trainers" (Al-Qahtani, 2020: 133).

The training programs aim to improve educational climates within institutions, and develop sound attitudes among individuals from teachers and administrators in appreciating the work they do, and its effects on society as a whole, and providing them with basic skills and information in the field of specialization and social relations, and informing them of technological and scientific developments, and the latest scientific findings, and providing them with methods of continuous education by enabling them to acquire self-learning skills (Al-Lahibi, 2018).

#### 4.1 Educational Technology

In recent times, educational technology has become one of the modern practices commonly used in the educational process; it has been integrated through many methods related to traditional face-to-face education, blended education, and education entirely through online environments such as open learning and distance learning. Educational technology includes two abstract words, technology and education.

Technology refers to "the application of scientific theory in achieving specific practical goals, and the application of science in the arts, as well as a set of tools and skills used to meet societal needs" (Collins Dictionary, 2023).

As for the term education, it refers to "the process of interaction between the learner and learning resources, and conceptual learning includes the process of teaching an individual, learning from an individual, and learning from something. Teaching individuals occurs in teaching in the clearest ways, and learning from an individual indicates the learner's interaction with a human resource, while learning from something includes interaction with non-human resources such as educational materials, environmental resources, and media in the learning process. Once this structure is determined for a specific learning situation, the nature of education is achieved" (Pakpur 2011: 20).

In this context, the impact of technology is so great that it practically controls all areas of life. If technology is employed correctly, it can achieve education in a more productive way, and make it available in a powerful and immediate way. Education is based on science, and as a result of technology, there is a profound impact on how an individual learns, what he learns, and where he learns. Modern technology also challenges teachers to re-evaluate their roles and responsibilities in an era of radical change. When technology is employed with the aim of accelerating and facilitating educational processes in order to achieve specific educational goals, that technology is called educational technology (Ahmed, 2022).

Jaiswal (2020: 147) defined educational technology as "the deliberate implementation of appropriate tools, techniques, or processes that facilitate the use of senses, memory, and perception to enhance teaching practices and improve educational outcomes."

Tuma (2021: 231) defined educational technology as "a branch of educational theory and practice that focuses primarily on the design and use of messages that control the learning process."

The importance of educational technology lies in enhancing the efficiency of education by improving the quality of teaching, educational administration, and educational research; therefore, educational technology is important for effective education, as research in the field of education shows that motivated students can learn a lot using technical educational media,

and technologies can improve the effectiveness of teaching, due to their role in facilitating individual differences. Educational technology facilitates individual students to learn according to their requirements and pace of learning, as students interact with educational materials and follow their own learning tasks (Mazarara and Sayed, 2021).

It is also important to transfer knowledge; The use of modern means in education can reach and teach students in any geographical location in the world, and almost the entire country can be covered at the same time through the radio or television network system. Communication satellites have also added the effectiveness and efficiency of remote communication and have made it possible to connect more than one location and more than one group of students through a two-way talk system. The importance of educational technology is evident in transferring good education due to advance planning and the involvement of experts specialized in the field of study (Jad Allah, 2020). Al-Shuraidah (2020) added that the importance of educational technology is achieved by expanding students' minds, allowing them to search for new information regarding the subjects they study, and training them to confront and solve problems by putting them in different situations that require them to search, as well as helping to develop the linguistic level of students through continuous research and reading many topics, and making the student and teacher keen to do their duties to the fullest because the educational process has become more enjoyable thanks to technology.

Educational technology applications are among the most prominent achievements of the cognitive technological revolution, which can be greatly benefited from in the educational field. These applications should be effectively invested from many angles in developing many aspects of the teaching and learning process, and providing various facilities for performing tasks, especially in presenting lessons, units and educational curricula, in line with the developments that have affected the world as a result of the entry of the information age and the communications revolution, which leads to the development of educational applications and software in order to keep pace with these changes, in order to enable the use of technological tools in providing intended and unintended knowledge to students (Al-Disi, 2019). Educational technology applications are meant to be "tools, devices, methods and means that process information and educational materials and transfer them electronically, and are made of self-contained equipment or devices, or operating programs, and provide assistance to students and teachers in accessing and managing knowledge digitally, which contributes to the development of educational practices" (Al-Alawi, 2015: 272). In the current study, the focus was on a group of smartphone applications, and classified into groups, as follows:

**The first group:** Private learning applications

Private learning applications refer to educational methods that focus on covering the individual needs of students, and providing educational experiences that are specifically designed for them, with the aim of improving educational outcomes through their direct interaction with the applications, which contributes to uncovering and filling gaps. In this type of application, educational content that is compatible with the student is made available, and the interactive environment contributes to attracting the student and increasing his interaction through enrichment with various educational activities (Al-Baz, 2023). The group of private learning applications includes the following applications:

**The first application:** Nearpod application:

The Nearpod application is one of the interactive educational tools that can be used to enhance the learning experience in the classroom, and integrate technology into education effectively. It also provides a flexible platform that allows the teacher to create interactive lessons and present them in a way that encourages students to participate and attract attention. It also allows the creation of presentations that include interactive activities and diverse educational content (Jabbara et al., 2022). The second application: Mentimeter application: Mentimeter application is one of the interactive applications used to enhance student interaction and participation in social educational environments. It also provides various tools for obtaining survey questionnaires and interactive group activities that allow participants to interact directly and immediately, making lessons more attractive and interactive (Farsh, 2023).

**The second group:** Exercise and practice applications

Exercise and practice applications refer to educational programs and tools designed to provide an interactive educational environment that helps students practice skills and exercises related to different topics, and allows them the opportunity to repeat the practice, obtain feedback, and improve performance according to the evaluation. The importance of these applications also appears in improving students' skills in different topics through repeating the practice, and encouraging students to learn actively by providing exciting and stimulating activities and contributing to increasing their interest in academic subjects (Muhammad, 2018). The group of exercise and practice applications includes the following applications:

**The third application:** Kahoot application:

Kahoot is one of the educational platforms that allows users to create educational games and share opinion polls in the form of a set of multiple-choice questions. This application is also considered one of the interactive tools that can be used to stimulate participation, enhance interaction, and evaluate knowledge in fun and exciting ways (Nimr, 2021).

**Fourth application:** Quizlet application:

Quizlet application is one of the famous educational applications, and is widely used to enhance learning by containing many interactive activities, especially in the field of learning different languages. The application relies on the idea of traditional flashcards at the first level, but it expands it to include multiple interactive tools that can be used to enhance memorization, understanding and application (Khader, 2022).

**Fifth application:** Wordwall application:

Wordwall application is one of the educational tools that aims to transform educational material into a set of attractive and fun interactive educational activities, and allows students to create diverse groups of educational activities that can be used in the classroom and training sessions. This application is also characterized by flexibility and ease of use (Farsh, 2023).

**The third group:** Interaction and participation applications

Interaction and participation applications refer to the tools and means that are used to encourage students to actively and effectively interact with educational content. They also allow the possibility of presenting educational material in an interesting, interactive and attractive way for students (Abdul Hadi and Mahmoud, 2023). The group of interaction and participation applications includes the following application:

**The sixth application:** Padlet application:

The Padlet application is one of the innovative educational applications that provides the opportunity for teachers and students to create flexible, interactive boards while exchanging ideas, presenting educational material, and organizing information in an organized, arranged and attractive way (Khader, 2022).

Through the above, it is noted that educational technology has brought about a qualitative shift in the educational process, as it has become an effective means of improving educational quality and making education more interactive and flexible. Educational applications include the use of digital platforms that allow students to easily access educational materials at all times and from all places, which contributes to enhancing learning independence. Smart assessment tools are used to accelerate test correction processes and monitor student performance. Educational technology applications help enhance interaction between students and teachers through modern communication means such as electronic forums. The use of educational technology applications aims to enhance interaction and communication between teachers and students, and between students themselves, by using many tools provided by these applications such as email, interactive forums, chats and video chats, in order to enable students to acquire useful skills, such as skills in dealing with others, the ability to think critically and possess the ability to lead, and improve attitudes towards learning. The goals include enhancing students and directing them towards creativity and innovation; Students can use interactive educational programs and educational games to learn difficult concepts in fun and attractive ways (Afach, et al., 2018).

The importance of educational technology applications in improving the teaching-learning process is evident through communication and interaction between students and teachers; as these various applications enable the exchange of information and educational content in an easy way, which enhances interaction between members of the teaching-learning process, and facilitates communication mechanisms between students themselves. Through the use of these applications, the teacher can provide the necessary support to students (Nabhan, 2016).

Educational technology applications represent many tools and various technologies that can be employed in education, and are characterized by many features that increase their importance and effectiveness in achieving educational quality and increasing students' opportunities to learn. The most prominent features are the following:

**Interactivity:** One of the most prominent features of these interactive applications is providing opportunities for students to interact with the educational material in direct and effective ways, and enabling the teacher to use technology to provide exciting and interactive educational experiences for students, which is reflected in the positive impact on education and student performance (Bray & Tangney, 2017).

**Speed and ease:** Speed and ease are characteristics of educational technology applications, as they allow students and teachers to access information and educational content quickly via the Internet. The ease of responding to students' needs is one of the characteristics that distinguish these applications, as they are easy to use (Abdul Hamid, 2010).

**Customization:** Educational technology applications provide the opportunity to adapt to the needs of students and teachers, and they also help teachers customize educational material according to students' needs and academic abilities. This stems from the diversity of educational resources, as it is easy to modify educational strategies and educational material presented in lessons to suit the nature of students and their needs (Al-Jahni, 2014).

**Access:** Educational technology applications have contributed to removing barriers and obstacles and reducing restrictions on students' access to knowledge, as these applications have the ability to access information and knowledge widely and anywhere in the world (Abdullah et al., 2023).

**Collaborative:** Educational technology applications help students to work collaboratively and collaboratively in an easy and attractive way. There are many forms of collaborative work, such as peer assessment, where students evaluate each other and provide feedback to them. Collaboration and collaboration between students can be done through many tools, such as discussion forums that allow students to exchange ideas and viewpoints about a particular idea (Haroun, 2019).

## **4.2 Learning Management**

When studying various educational topics, we should talk about learning management; considering that learning includes a set of human and material elements, such as the teacher, students, educational methods, and classrooms that interact with each other in a way that ensures the progress of the teaching and learning process, according to educational policies and the vision of the educational institution.

Sun and Chen (2016: 165) defined learning as "a process that seeks to provide the individual with the means to help satisfy their motivations and needs, and achieve the desired goals, and is based on three things: the subject, the learning situation, and the learner, with the aim of creating behaviors through education, training and practice, and gaining experience." Teachers should pay attention to providing the moral and material classroom environment; in addition to teaching practices, they should focus on equipping classrooms with the necessary tools and techniques to implement teaching activities, in addition to providing aspects of safety and psychological comfort within classrooms, encouraging students to interact in the classroom, and instilling a positive spirit in reaching student interaction and their eagerness to learn (Al-Harhi and Al-Shahri, 2023). Chang (2016: 32) defined learning management as "a set of logistical services in managing students, learning activities, drawing efficiency maps in teaching, and what it includes of activities, evaluating students' current skills, working with them to determine educational goals, determining the sequence of procedures in implementing teaching, supporting cooperation, and creating reports that contribute to increasing the effectiveness of the learning process." Learning management is also defined as "the process of designing educational programs, managing classroom times and activities, and organizing the process of students' interaction with educational content and the teacher, in order to achieve comprehensive cognitive and skill development" (Salam, 2022: 823). Learning management aims to enhance educational quality and achieve educational goals, as learning management seeks to ensure the achievement of the goals specified in the curricula through a series of planning and implementation processes in educational activities. It also aims to create an organized and safe educational environment that contributes to enhancing students' focus and discipline, and providing abundant space for effective learning. It also aims to enhance teachers' ability to choose and apply teaching strategies that are compatible with students' needs and the diversity of their learning methods and styles (Al-Sa'ab, 2021). Effective learning management also includes a set of elements such as investing time, providing the appropriate atmosphere in the learning process, focusing on the competencies and experiences possessed by teachers, their ability to take into account students' individual needs, desires, and attitudes towards learning, and the available financial resources, educational tools, technical devices, and capabilities to support the teacher in achieving the desired goals (Alal, 2023). The current study adopted four learning management skills, which are as follows:

### **First: Classroom Environment Management**

Classroom environment management also includes enhancing students' self-discipline by encouraging them to respect classroom rules and directing them to take responsibility for their actions. The teacher can achieve this by employing cooperative educational methods, as students work in groups, which increases their sense of responsibility towards achieving collective goals (Al-Ghamdi, 2024).

## **Second: Time Management**

Effective time management gives the teacher a real opportunity to achieve educational goals and class goals efficiently. This includes planning lessons in advance, allocating a specific time for each activity, and ensuring a balance between different activities in order to ensure that educational goals are achieved. Employing tools such as timetables and timers helps in making the most of time and avoiding wasting it. Time management skills also require the teacher's ability to deal with any unexpected matters within the classroom (Al-Muhankar, 2014).

## **Third: Managing student behavior**

Student behavior management requires setting clear rules for behaviors in classrooms from the beginning, ensuring that students understand the rules properly and guiding them continuously to adhere to them. It is possible to use methods that enhance students' positivity, such as praising and commending good behaviors or providing simple rewards in order to enhance discipline. It also includes dealing with unwanted behaviors in a constructive manner by talking to the student in supportive ways and working to clarify the negative impact of his behavior on the rest of the students (Al-Balawi, 2022).

## **Fourth: Managing organization and planning**

The skill of managing organization and planning includes preparing integrated study plans that are consistent with the objectives of the curriculum, educational content, and students' needs. It also includes choosing appropriate educational activities and resources, and determining evaluation methods in order to ensure the achievement of the desired learning outcomes. The skill of managing organization also requires documenting the teacher's educational efforts by keeping accurate records of his daily activities (Al-Hazmi, 2020).

Accordingly, learning management skills are the cornerstone of the success of the teaching and learning process, as they include classroom environment management, which seeks to create a safe and stimulating educational environment that supports student discipline and positive interaction between them, and time management, which focuses on organizing educational activities and using time effectively to achieve educational goals. It also includes student behavior management, which is concerned with promoting positive behaviors through guidance, advice, and following preventive strategies instead of punishment, and the skill of organization and planning management, which depends on preparing flexible and organized educational plans that adapt to students' needs and use educational resources efficiently. All of these skills work together in an integrated manner to ensure the achievement of a fruitful and balanced educational experience.

### **4.3 English Language Teaching**

In the Hashemite Kingdom of Jordan, the importance of teaching this subject stems from the fact that it is the second approved language, after the mother tongue Arabic, which is used by members of Jordanian society in many daily life situations. The Hashemite Kingdom of Jordan enjoys an advanced ranking among Arab countries in giving it importance in teaching students and preparing students to master its various skills; as it is a mandatory teaching subject in all grades. Therefore, the Jordanian Ministry of Education sought to combine efforts in formulating the main framework in a manner consistent with the desired visions, which is the primary reference when developing curricula and school books (Al-Rimawi, 2017). Learning the four English language skills of listening, speaking, reading, and writing is essential for gaining proficiency in the language, as these skills complement each other and help students enhance effective communication. Listening is the first skill that students acquire, which helps them understand the correct pronunciation of words and become familiar with the vocabulary and structures used in different contexts. Listening can be improved by listening to texts, conversations, programs, and video clips in English. Speaking is the main skill in achieving oral communication, as it shows students' ability to employ vocabulary and linguistic structures while expressing their thoughts and feelings, which can be developed by participating in daily conversations, practicing with friends and teachers, and participating in interactive activities such as debates in English (Vulchanova, et al., 2015). Reading skills help students understand written texts, expand their vocabulary, and enhance their ability to think critically. This skill can be developed while reading books, articles, short stories, plays, and novels in English, as well as by analyzing texts and understanding main and secondary ideas. Writing skills are a means of expressing ideas in organized and accurate ways, and they are of particular importance in academic and professional life. This skill can be developed by writing letters, articles, and diaries, while paying attention to focusing on using correct grammar rules while writing (Al-Maliki, 2022). From the above, it is noted that teaching English aims to empower students with basic language skills, including listening, speaking, reading, and writing, which helps them communicate confidently and effectively in different situations. Teaching English is based on the use of innovative teaching methods that combine interactive activities and various educational materials, such as stories, plays, and digital technologies, to motivate students and make the learning process fun, exciting, and effective.



## **5. Previous Studies**

Previous studies in Arabic and English were discussed, and were divided into two axes. These studies were arranged according to the date of their implementation, from the most recent to the oldest, within each axis, as follows:

### **5.1 First: Studies that dealt with a training program based on educational technology applications:**

The study of Al-Qahtani and Al-Massad (2024) aimed to reveal the effect of a training program based on the electronic TAWOCK model for teaching computational thinking skills in teaching self-efficacy among computer teachers. The quasi-experimental approach was used, with a pre-test and post-test design with the control group. An electronic training program based on the TAWOCK model (the scale of self-efficacy in teaching) was designed and prepared. The research sample included (42) teachers in the experimental group, and (39) teachers in the control group. The research concluded that: There is a statistically significant difference between the average scores of computer teachers in the experimental and control groups in the post-application; In favor of the experimental group, the Eta square value for the total scale of self-efficacy in teaching was (0.613).

Abdul Karim and Al-Zaabi (2023) conducted a study that aimed to identify the effectiveness of an interactive training program based on active learning strategies in developing the skills of integrating technology into education among primary school teachers. The study followed the experimental approach with a pre-experimental design. An interactive training program based on active learning strategies was built, and an observation card was built to measure the degree of technology integration into education among primary school teachers as study tools. The study sample consisted of (7) teachers who were selected in an accessible manner from primary school teachers. The results of the study showed that there were statistically significant differences in favor of the post-measurement attributed to the effectiveness of the interactive training program in developing the skills of integrating technology into education among primary school teachers.

Al-Sarayrah (2023) conducted a study that aimed to identify the effectiveness of a training program for primary school teachers based on e-learning competencies in developing creative thinking skills and improving their motivation to teach. The study followed the experimental approach; quasi-experimental design. The study sample consisted of (60) male and female teachers. The teachers were intentionally selected from the Model School of Mu'tah University in the Directorate of Education for the Southern Mazar District in the Hashemite Kingdom of Jordan. To achieve the objectives of the study, a scale for creative thinking and a scale for motivation to teach were developed. The results of the study showed statistically significant differences between the average scores of the two experimental groups that studied using a training program based on e-learning competencies and the scores of the control group that studied in the traditional way on the scales of creative thinking and motivation, in favor of the experimental group. The study of

Al-Sarani (2023) aimed to know the effect of a training program based on digital learning strategies in developing twenty-first century skills and understanding the nature of the scientific endeavor among science teachers in the primary stage. The experimental method with a single group with pre- and post-measurement was used. The study sample consisted of (45) science teachers in the primary stage in Medina. The training program and study tools were applied to them before and after, consisting of: the twenty-first century skills scale for science teachers in the primary stage and a test for understanding the nature of the scientific endeavor. The study reached the following results: There were statistically significant differences between the pre-application scores and the post-application scores on the 21st Century Skills Scale, as well as in the test of understanding the nature of the scientific endeavor in favor of the post-application. The size of the training program's impact was average in developing 21st century skills and understanding the nature of the scientific endeavor.

### **5.2 Second axis: Studies that addressed learning management skills**

Abdul Haq et al. (2022) conducted a study aimed at developing classroom management skills and assessment skills among pre-service English language teachers in light of academic accreditation requirements by using a program based on the semantic web. The study consisted of (37) male and female students. The study adopted the pre- and post-test design for one group. The current study included five main tools: a list of classroom management skills and assessment skills, an observation card (pre- and post-test), a performance scale (pre- and post-test), and a program based on the semantic web in addition to a questionnaire on the extent of the study group's satisfaction with the program as study tools. The results of the study concluded that the use of the semantic web-based program is effective in developing classroom management skills and assessment skills for pre-service English as a foreign language teachers.

The study of Shaqour and Badir (2021) aimed to identify the effectiveness of a training program to provide female teachers with skills in designing interactive activities using the Smart Notebook application and two trends towards it in the schools of the Tulkarm Education Directorate. The study sample consisted of (21) female teachers in various main specializations in two primary schools in the city of Tulkarm. The training program was applied to them for two weeks after applying the pre-test and

then applying the study tools represented in the post-test and interview. The study found that there was a statistically significant difference in the acquisition of skills by female trainees to design interactive activities using the Smart Notebook application attributed to the training program. The results also indicated the satisfaction of female trainees with the mechanism of implementing the program and the different training conditions through a direct interview with a sample of them.

Al Dalan (2020) conducted a study that aimed to identify the competencies required for secondary school teachers in classroom management using the cooperative learning strategy from the perspective of the study community, to reveal the obstacles to implementing the cooperative learning strategy in classroom management from the perspective of the study community, and to identify the appropriate methods to activate classroom management competencies among secondary school teachers using the cooperative learning strategy from the perspective of the study community. The study followed the descriptive analytical approach. The questionnaire was used as a study tool. The study sample consisted of (200) teachers. The results of the study showed that teachers were aware of the importance of the cooperative learning strategy and were convinced of the positive results of its application, and that there was a clear need for classroom management based on a scientific basis for applying the cooperative learning strategy, and that there was a (great) need to develop classroom management competencies in light of the cooperative learning strategy among teachers, and the degree of obstacles to implementing the cooperative learning strategy was (great).

Mohamed's study (2018) aimed to reveal the effectiveness of a proposed training program for reflective teaching in developing educational competence, reflective thinking, and attitudes towards the profession among pre-service science teachers at the Faculty of Education, Minia University. The quasi-experimental approach based on a single-group design and pre- and post-measurement was used. The study subjects consisted of (30) male and female students from the fourth year of chemistry at the Faculty of Education, Minia University. A reflective thinking skills scale was developed, and its validity and reliability were confirmed. The results indicated a statistically significant difference between the average scores of the experimental group members in the pre- and post-measurement on the educational competence scale, the reflective thinking scale, and attitudes towards the teaching profession. It is noted from reviewing previous studies in general that they generally revolve around a training program based on educational technology applications, as stated in Al-Sarayrah (2023), a study that aimed to identify the effectiveness of a training program for primary school teachers based on e-learning competencies in developing creative thinking skills and improving their motivation to teach, and the study of Shaqour and Badir (2021) to determine the effectiveness of a training program to provide teachers with skills in designing interactive activities using the Smart Notebook application. While the current study differs from some previous studies in terms of its attempt to focus on developing learning management skills, the current study differs from previous studies in the place of study, and in terms of the place of study, it is the only study conducted - within the limits of the researchers' knowledge - in Jordan. The researchers benefited from preparing the theoretical framework, reviewing the tools prepared in it, and the variables it addressed. However, the current study was distinguished by addressing the effectiveness of a training program based on educational technology applications in developing learning management skills among English language teachers, which was not conducted in any previous study.

## **6. Method and Procedures**

### **6.1 Study Methodology**

In this study, the researchers used the experimental method with a single-group design (pre-post), which is the optimal method to reveal the effect of the training method (the effectiveness of a training program based on educational technology applications in developing learning management skills among English language teachers).

### **6.2 Study Individuals**

The individuals of the current study were selected by the available method from English language teachers in government schools in Deir Alla District of Balqa Governorate from the first semester of the academic year 2024/2025, and the number of study individuals will consist of (16) English language teachers.

### **6.3 Study Tool**

To achieve the objectives of the current study, a learning management skills observation card was prepared, and the following is a presentation of it:

#### **Learning Management Skills Observation Card**

In order to measure the learning management skills of English language teachers, a learning management skills observation card was prepared, by reviewing the theoretical literature and previous studies that addressed the topic of learning management skills, and these skills were limited to (educational environment management, time management, student behavior

management, and organization and planning management), and among these studies is the study of Abdel-Haq et al. (2022), the study of Shaqour and Badir (2021), and a list of the previous skills was prepared, and a set of paragraphs, numbering (29) paragraphs, was formulated according to the five-point Likert scale.

**Validity of the Learning Management Skills Observation Card**

The validity of the observation card was verified in the following two ways:

**First: Apparent validity:**

To verify the validity of the Learning Management Skills Observation Card, it was presented to (15) male and female arbitrators with expertise and experience in the fields of (teaching methods and techniques, educational technology, and measurement and evaluation), where they were asked to express their opinion on the test in terms of the formulation of the linguistic paragraphs, and the suitability of the questions to the sub-skills. Some matters were deleted and added in light of what they saw as appropriate, noting that none of the paragraphs were changed or deleted, as the arbitrators' modifications were limited to the way some of the sub-points were formulated to suit the level of the English language teachers.

Second: Construct validity To extract the construct validity indications for the observation card, the paragraph correlation coefficients were extracted with the total score of the observation card for the field to which it belongs in a survey sample from outside the study sample consisting of (15) female English language teachers. The paragraph correlation coefficients with the total score of the observation card for the field of educational environment management ranged between (0.53-0.79), and the paragraph correlation coefficients with the total score of the observation card for the field of time management ranged between (0.66-0.75), and the paragraph correlation coefficients with the total score of the observation card for the field of student behavior management ranged between (0.58-0.73), and the paragraph correlation coefficients with the total score of the observation card for the field of organization and planning management ranged between (0.55-0.82), and the following table shows that.

**Table (1)**

**Correlation coefficients between the paragraph and the total score of the field to which it belongs**

Organization and Planning Department		Student Management	Behavior	Time management		Educational environment management	
Correlation coefficient	Paragraph number	Correlation coefficient	Paragraph number	Correlation coefficient	Paragraph number	Correlation coefficient	Paragraph number
0.74**	1	*0.58	1	**0.75	1	0.59*	1
0.65**	2	0.63**	2	0.72**	2	0.72**	2
0.55*	3	0.57*	3	0.66**	3	0.53*	3
0.66**	4	0.64**	4	0.69**	4	0.79**	4
0.82**	5	0.73**	5	0.68**	5	0.69**	5
0.60*	6	0.61**	6	0.70**	6	0.58*	6
0.64**	7	0.68**	7	0.71**	7		
0.57*	8	0.69**	8				

**\*Statistically significant at the significance level (0.05).**

**\*\*Statistically significant at the significance level (0.01).**

It is worth noting that all correlation coefficients were acceptable and statistically significant, and therefore none of these items were deleted.

**Reliability of the Learning Management Skills Observation Card**

To ensure the stability of the study tool, it was verified using inter-rater reliability: which is a measure of the extent of agreement between observers on the scores of teaching practices for one individual. This is done by observing the same individual by another teacher, then comparing their scores to determine the extent of agreement on a group outside the study sample consisting of (15) teachers, and then Pearson's correlation coefficient was calculated between the degree of agreement in the two times.

The reliability coefficient was also calculated using the intra-rater reliability method: which is a measure of the stability of the individual's performance on the observation card during a specific period of time. Table No. (2) shows the stability of the domains and the total score, and these values were considered appropriate for the purposes of this study.

**Table (2)**

**Cronbach's alpha internal consistency coefficient and retest reliability for the domains and the total score**

stability over time	Consistency across individuals	Domain
0.94	0.87	Educational Environment Management
0.90	0.91	Time Management
0.89	0.85	Student Behavior Management
0.91	0.88	Organization and Planning Management

**Training Program Based on Educational Technology Applications**

Program Objective: The training program aimed to employ educational technology applications and measure the effectiveness of the training program sessions in developing learning management skills among English language teachers.

**Validity of the training program based on educational technology applications**

To verify the validity of the training program, it was presented to (15) male and female arbitrators with expertise and experience in the fields of (teaching methods and techniques, educational technology, measurement and evaluation), where they were asked to express their opinion on the program in terms of the suitability of its general and specific objectives for what it was established for, its adherence to educational technology applications, the suitability of the methods used in the program, and the linguistic formulation.

Target group: English language teachers who teach in government schools in Deir Alla District of Balqa Governorate from the first semester of the academic year 2024/2025.

**Time distribution of the training program**

Training time	Content	Session
1:30 training hours	Introduction to the training program and pre-application	1st
3 training hours	Introduction to educational technology	2nd
3 training hours	Systems Approach to Educational Content Design	3rd
3 hours of training	Private Learning Applications (Nearpod)	4th
3 hours of training	Private Learning Applications (Mentimeter)	5th
3 hours of training	Practice and Exercise Applications (Kahoot), (Wordwall), (Quizlet).	6th
3 hours of training	Interaction and Participation Applications (Padlet)	7th
1:30 hours of training	Program End and Post-Application	8th
24 hours of training	Total number of training hours	

Definition of the training program: It is a set of organized, planned and proposed training sessions based on educational technology applications, which are provided to English language teachers who teach grades from fourth to twelfth secondary school in the Directorate of Education of Deir Alla District in Balqa Governorate in Jordan, with the aim of measuring the effectiveness of a training program in improving teaching practices and developing learning management skills among English language teachers. Each training session includes a set of activities, and each activity includes several elements, namely: preparation and motivation, activity objective, prior learning, activity tools, activity implementation strategies, activity implementation procedures, and practical application of the activity, which includes the following applications: Nearpod, Kahoot, Wordwall, Mentimeter, Padlet, and feedback procedures. The training program and its training sessions were implemented and managed under the supervision of the researcher and by her.

#### **6.4 Philosophical foundations of the training program**

The foundations of the training program include the following:

- Identifying the technological and educational skills that teachers must acquire.
- Assessing teachers' needs and identifying gaps that must be filled.
- Including practical training on common educational technology tools and applications.
- Providing real examples from classrooms that demonstrate how educational technology can improve the educational process.
- Combining direct explanation with interactive activities, such as workshops and practical sessions.
- Assigning teachers to applied projects in which they use the technologies they have been trained on.
- Providing resources and materials for self-learning, such as educational videos and e-lessons.

#### **6.5 Study Procedures**

To implement the study, the researchers followed the following procedures:

- Reviewing theoretical and educational literature, periodicals, and previous studies that addressed the topic of educational technology applications in training programs.
- Preparing the study tool represented by (learning management skills observation card) and verifying the validity and reliability of the tool.
- The effectiveness of the training program based on educational technology applications, and verifying its validity.
- Determining the timetable for implementing the program distributed over weeks and study periods.
- Obtaining a task facilitation book from the International Islamic University of Sciences.
- Selecting study individuals and applying the pre-study tool.
- Starting training the experimental group individuals using the program prepared by the researchers, where the procedures and methods indicated in each training session were followed.
- The duration of implementing the program lasted three weeks.
- Applying the post-tool to the study individuals.
- Collecting the results and transcribing them into the (Excel) software, and then analyzing the results using the statistical packages program (SPSS).
- Discussing the results and linking them with previous studies, and writing the most prominent recommendations in light of the results reached.

#### **6.6 Statistical processing**

1. Pearson correlation coefficient; to extract the validity and reliability indications of the study tool.
2. Cronbach's alpha equation; to extract the internal consistency coefficient.
3. Arithmetic means and standard deviations; to answer the study question.
4. Wilcoxon Signed Ranks Test analysis to find the significance of the differences between the average ranks of the English language teachers' scores in the learning management skills observation card.

### **7. Study results**

This section presents the results of the study that were reached, according to the study question, which stated:

- Are there statistically significant differences at the significance level ( $\alpha=0.05$ ) between the average performance of the experimental group members in the pre- and post-scale of the learning management skills observation card attributed to the training program based on educational technology applications?

To answer this question, the arithmetic averages and standard deviations were extracted in the pre- and post-scales of learning management skills, and the table below shows that.

**Table (3)**

**Arithmetic means and standard deviations in the pre- and post-measurements of learning management skills**

After me		tribal		The field	The number
Standard deviation	Arithmetic mean	Standard deviation	Arithmetic mean		
.202	1.93	.387	1.38	التعليمية البيئة إدارة	1
.216	1.97	.361	1.48	الوقت إدارة	2
.178	1.98	.346	1.41	الطلبة سلوك إدارة	3
.257	1.96	.341	1.32	والتخطيط التنظيم إدارة	4
.079	1.96	.313	1.39	ككل التعلم إدارة مهارات	

The Wilcoxon Signed Ranks Test was also used to find the significance of the differences between the mean ranks of the English language teachers' scores in learning management skills between the pre- and post-measurements, as shown in the table below.

**Table (4)**

**Wilcoxon Signed Ranks Test Results to Find the Significance of the Differences between the Average Ranks of English Language Teachers' Scores in Learning Management Skills in the Pre- and Post-Tests**

Statistical significance	Z	Total ranks	Average Rank	number		
0.001	-3.322	.00	.00	0	Negative ranks	Managing the learning environment
		105.00	7.50	14	Positive ranks	
				2	Equal ranks	
				16	Total	
0.001	-3.305	.00	.00	0	Negative ranks	Time management
		105.00	7.50	14	Positive ranks	
				2	Equal ranks	
				16	Total	
0.001	-3.185	.00	.00	0	Negative ranks	Student behavior management
		91.00	7.00	13	Positive ranks	
				3	Equal ranks	
				16	Total	
0.001	-3.332	1.50	1.50	1	Negative ranks	Organization and planning management
		118.50	8.46	14	Positive ranks	
				1	Equal ranks	

				16	Total	
0.001	-3.417	2.00	2.00	1	Negative ranks	Learning management skills as a whole
		134.00	8.93	15	Positive ranks	
				0	Equal ranks	
				16	Total	

Table No. (4) shows that there are statistically significant differences ( $\alpha=0.05$ ) between the scores of English language teachers in learning management skills in the pre- and post-measurements in all areas and the total score, and the differences were in favor of the post-measurement.

### 7.1 Discussion of the results

In this section, the results were discussed, according to the results produced by the study question, and recommendations and proposals were formulated in light of those results.

- Discussion of the results of the main question, which stated: "Are there statistically significant differences at the significance level ( $\alpha=0.05$ ) between the average performance of the experimental group members in the pre- and post-measurement of the learning management skills observation card attributed to the training program based on educational technology applications?"

The results indicated that there were statistically significant differences ( $\alpha=0.05$ ) between the scores of English language teachers in learning management skills in the pre- and post-measurements in all areas and the total score, and the differences were in favor of the post-measurement. This result can be explained by the fact that the training program that was used and based on educational technology applications had a positive and effective impact in improving the learning management skills of English language teachers. This can be attributed to the presence of statistically significant differences in favor of the post-measurement due to the changes that the training program brought about, which may have included innovative training methods, interactive educational techniques, and digital tools that enhanced the teachers' ability to manage learning. The difference between the pre- and post-measurements in favor of the post-measurement may also indicate that the training program succeeded in achieving the training objectives by improving the performance of teachers in all the desired areas. In addition, the use of technology applications in training enabled teachers to adopt more modern and flexible strategies during learning management, which led to a clear enhancement of their efficiency. This may also be attributed to what the training program provided, which combined theory and practical application in enhancing the skills of trainees, as practical training enabled teachers to apply the things they learned in the classroom. The result that showed the existence of statistically significant differences in favor of the post-measurement may also reflect the direct positive impact of the training program based on educational technology applications. This can be explained by the fact that the improvement in the introduction of technology into training helped teachers acquire new skills and take care of applying them efficiently. Educational technology applications also provided interactive opportunities, such as simulation, the use of collaborative digital tools, and virtual learning platforms, which contributed to enriching the learning experience of teachers and contributed to improving the actual performance of teachers in learning management. This can also be attributed to the fact that the training that focused on developing many practical skills, such as time management, effective communication, and the use of modern technologies, enabled the transformation of teachers' daily practices. In addition, practical and repeated training in technological programs enhanced their confidence and skill, which led to positive results, as shown in the post-test.

This result can also be interpreted as the fact that the use of technology not only contributes to improving professional efficiency, but also contributes to reshaping teachers' concepts about how to manage the educational process, which enhanced their sense of self-ability and demonstrated creativity in facing the challenges of learning management. The training program based on educational technology applications also provided an educational environment in which teachers applied the content in educational contexts similar to reality, which contributed to enabling teachers to transfer learning during training to classroom practices.

### 8. Recommendations

**In light of the research results, the researchers made the following recommendations:**

- Providing similar training programs for all teachers at different educational levels, especially those based on educational technology applications.

- Directing efforts towards designing specialized programs to improve learning management skills in different subjects.
- Providing tools that contribute to introducing educational technology in schools, such as smart boards, laptops, and e-learning platforms.
- Holding periodic training workshops to develop teachers' skills and ensure that they keep pace with continuous technological developments.
- Activating professional learning communities on the Internet allows teachers to exchange experiences and knowledge about educational technology.
- Encouraging schools to adopt training practices based on educational technology by involving school administrations in designing and implementing training programs to enhance integration between administration and teachers.

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