

THE USE OF COMPUTER TECHNOLOGIES IN SPECIAL EDUCATION TEACHER TRAINING PROGRAMS IN EAST JERUSALEM: STUDENTS' PERSPECTIVES AND ITS IMPACT ON PRACTICAL APPLICATIONS SDG

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ABSTRACT

Objectives: This research investigates the use of computer technologies in special education teacher training programs in East Jerusalem, focusing on students' perspectives regarding their impact on practical applications.

Theoretical Framework: Grounded in educational technology theories, the study examines how digital tools enhance teaching skills and educational experiences among future special education teachers.

Method: A descriptive approach was employed, utilizing a validated questionnaire to gather data from 680 students across three colleges. A sample of 245 students was selected using an available method.

Results and Discussion: The findings indicate a significant degree of computer technology use in the qualification program (mean = 3.80). However, there were no statistically significant differences ($\alpha = 0.05$) in effectiveness based on gender, age, or prior experience with technology. Students reported positive impacts on their performance in practical applications.

Research Implications: The study highlights the need for enhanced training in computerized technologies within special education teacher programs to maximize effectiveness and prepare teachers for modern educational demands.

Originality/Value: By addressing gaps in the literature regarding technology integration in special education training, this research provides valuable insights for curriculum development and policy improvements in teacher education.

Keywords: computerized technologies, special education teacher qualification program, students of special education teacher qualification programs, East Jerusalem, sustainable development goals (SDGs).

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1 INTRODUCTION

Technological progress in the current era has imposed fundamental changes that have extended to all sectors of life, including education, as the roots of computerized technologies have taken root in the educational process in the current era, with the purpose of improving the quality of education and educational outcomes and contributing to enhancing the interaction of students in general with the educational process, and people with special needs in particular

With regard to computerized technologies, it includes many tools and applications that seek to make the education process easier and more quality, such as virtual reality and augmented reality technologies, distance learning and artificial intelligence technologies, interactive images and sounds, and other electronic applications that purpose to serve the learning process (Ford, 2021), where the need to employ computerized technology in the educational process, as these technologies enhance interaction between teacher and student with an unlimited number of different educational resources, where It provides an integrated experience that touches students directly, to meet the needs of the times we live in (Hamdi, 1998).

Current studies and statistics have proven the positive effect of employing computerized technologies in the educational process, even the presence of some obstacles, but their impact was enhanced to the outputs of the educational process (Abu Rizk, 2012), as technologies contribute to the success of educational systems, as well as work to break the barrier of boredom and contribute to understanding abstract meanings, and it is of great importance to teachers to raise the interest of students in general and people with special needs in particular (Al-Awda, 2008).

Considering to the unusual needs of students with special needs, it was necessary to provide planned programs commensurate with these needs, and computerized technologies are one of the most successful methods that can be used in the education of people with special needs, because of their educational, psychological and social benefits, and accordingly it was necessary

for educational institutions to seek to employ everything new with the needs of this group (Mustafa, 2014).

Computerized technologies play a prominent role in serving people with special needs, as they enhance their abilities to interact with these technologies and thus reach the desired results of responses, and they also take into account effective education, and raise motivation between students, in addition to contributing effectively to enabling students with basic skills such as reading, arithmetic and others, and these means play an effective role when talking about enhancing the psychological side of this category, as it works to enhance their self-confidence and independence (Hannaford & Taber, 1982).

The most featured thing about these technologies is that they deal with each learner according to his abilities, skills and speed, and contribute to the process of individualizing education, each learner according to what he needs, allowing students with special needs to perform tasks that they may not be able to do alone, such as using talking books for students with visual impairments (Al-Khatib, 2021), (Al-Mallah, 2016).

Teachers have a basic role in the educational process as the first responsible in it, as it is considered the first source of knowledge for students, and based on this great role of teachers, it is necessary to be ready to perform the educational process in all its aspects (Al-Khafaji, 2016), starting with comprehensive knowledge of teaching courses, educational methods and issues, learners' needs, properties and abilities, as well as the availability of personal traits necessary for the educational process of self-control, emotional intelligence, wisdom and others (Khader, 2006).

Because to the importance of the teacher and being a main pillar in the educational process, it was necessary to train and qualify teachers in a way that achieves the interest of learners in general and students with special needs in particular, with the purpose of developing their skills and improving their experiences, to increase their understanding of the needs of this group, and thus employ appropriate education strategies (Obeidat, 2019).

Embracing technological innovation is not easy for teachers. Where many studies show difficulties and barriers in this subject stemming from the educational perceptions of teachers, lack of communication skills, and lack of

technical, educational and administrative support (גולדשטיין ואחרים, 2012; Surry,; 2003 ,Rogers; 2011 ,Liu2012 ,Vance & ,Yohn ,Lewis).

The use of computerized technologies under the rehabilitation programs for special education teachers has become essential to enhance their abilities to face the challenges of modern education. The training of teachers in this field is a basic part of the development of specialized education systems.

In 2010, Israel's National Plan for the Adaptation of the Education System to the 21st Century was launched - as a result, the "Plan for Adapting Colleges to Education in the 21st Century" began to be implemented. This program focused on training and qualifying students to develop educational innovation, as well as improving their ability to lead school teachers to effectively integrate technology into teaching and work (Raymond, 2012).

The Special Education Teacher Training Program in East Jerusalem is one of the programs that designed to develop teachers' skills in dealing with students with special needs. Computerized technologies are an essential part of this program, playing an important role in improving the learning process and developing teachers' skills.

This research designed to explore the degree of use of computerized technologies in the teacher qualification program Special education in East Jerusalem, and the extent of its impact on their performance in practical applications from the students.

1.1 OBJECTIVES

1. Rating the extent to which computerized technologies are used in the special education teacher training program in East Jerusalem;
2. Evaluate the effect of using these technologies on student performance in practical applications;
3. Explore students' views on the effectiveness of computerized technologies in improving their learning experience and teaching skills.

1.2 STUDY PROBLEM AND QUESTIONS

The huge development in the current era has reached various sides of life, and the educational side in particular, which called for a rethinking of the nature of the educational process and its management, as it imposed on the teacher the introduction of modern technologies in the educational process and made it a basic part of this process, to keep pace with the era of openness, globalization and the technical revolution.

In this context, special education teachers in particular must use computerized technologies to serve the educational process, and they must have the necessary skills to employ these technologies in teaching people with special needs in a manner commensurate with the capabilities of this group and the specificity of their abilities.

so, the Special Education Teacher Training Program in East Jerusalem is one of the vital educational programs that designed to train and qualify teachers specialized in dealing with students with special needs, and with the increasing use of computerized technologies in the current era, the importance of evaluating the effectiveness of these technologies in improving the quality of training and their effect on teachers' performance in practical applications is highlighted.

The problem of the study is the need to understand the degree of use of computerized technologies in the rehabilitation program for special education teachers in East Jerusalem from the point of view of students, and the effect of this use on their performance in practical applications, as well as to identify the most influential computerized technologies and the factors that make them have this effect , which is important to improve the quality of training and develop rehabilitation programs for special education teachers in the region, and this is what prompted the researcher to conduct this study, which revolves around the degree of effect of the use of computerized technologies in Training program for special education teachers in East Jerusalem on performance in practical applications by answering the following questions:

1. What is the degree to which students use computerized technologies in the Special Education Teacher Training Program in East Jerusalem?

2. What is the degree of effect of the use of computerized technologies in the special education teacher training program in East Jerusalem on performance in practical applications?
3. What are the difficulties most affected by the use of computerized technologies in the special education teacher training program in East Jerusalem?
4. Are there statistically significant differences at the significance level ($0.05 = \alpha$) between the arithmetic averages and the degree of effect of the use of computerized technologies in the special education teacher training program in East Jerusalem on performance in practical applications from the students' point of view due to (gender, age, or experience in using computerized technologies)?

1.3 OBJECTIVES OF THE STUDY

The study designed to identify:

1. The degree of students' use of computerized technologies in the special education teacher training program in East Jerusalem;
2. The degree of effect of the use of computerized technologies in the rehabilitation program for special education teachers in East Jerusalem on performance in practical applications;
3. Computerized technologies most effect on the practical performance of students in the Special Education Teacher Training Program in East Jerusalem;
4. Detection of statistically significant differences at the significance level ($0.05 = \alpha$) between the arithmetic averages the degree of effect of the use of computerized technologies in the special education teacher training program in East Jerusalem on performance in practical applications from the students' point of view attributed to (gender, age, or experience in using computerized technologies).

1.4 SIGNIFICANCE OF THE STUDY

The importance of using computerized technologies in the rehabilitation program for special education teachers in east Jordan by meeting the needs of students with special needs, and providing effective and appropriate teaching for them through the best use of programs that contain modern technologies in education. Teacher training in this field is an essential part of the development of specialized education systems for students with special needs.

2 FIRST: THEORETICAL IMPORTANCE

- . The study contributes to enriching scientific research in the field of qualifying special education teachers, by clarifying the important role of computerized technologies in the education process;
- . The study provides a new theoretical framework that shows developments in education and the use of modern technologies, which seeks to clarify the effect of the use of these technologies on the educational process;
- . The study contributes to the development of theories and concepts related to the effect of computerized technologies on the practical performance of teachers and students in special education programs.

3 PRACTICAL IMPORTANCE

- .The study provides practical and applicable methods for special education teachers on how to use computerized technologies effectively in teaching;
- . The study helps teachers and decision-makers in the field of special education to identify the advantages and challenges inherent in the use of information technology in education;
- . The study provides practical recommendations designed at improving the training programs for special education teachers, thereby improving the quality of education provided to students with special needs in East

Jerusalem and increasing the effectiveness of teaching and training in this field.

It is hoped that this study will provide a theoretical and practical background that teachers and decision-makers may benefit from in preparing programs, activities and technical methods that contribute to raising the quality of education for people with special needs and rehabilitation programs for special education teachers, and it is hoped that this study will represent a scientific addition that contributes to enriching the local library with literature related to the reality of qualifying special education teachers. It is hoped that this study will open up new horizons for researchers to do more through its recommendations.

4 TERMINOLOGICAL AND PROCEDURAL DEFINITIONS

This study included the following terms:

Computerized Technologies: computational technologies are known idiomatically: It is a collection of techniques and tools that based on computers and modern technologies to carry out various activities and manage operations. These technologies include software, hardware, and systems that use computers to perform specific tasks, such as storing, processing, analyzing, and delivering results. (Hansch)

The researcher defines it procedurally: it is computer-based technologies and modern technologies that are used in the education of people with special needs and special education teachers are qualified to deal with them to contribute to the educational process.

Rehabilitation programs for special education teachers: An educational program that designed to provide special education teachers with the skills and knowledge necessary to teach people with special needs, as this program includes introducing students to the principles of special education and teaching methods appropriate to those needs, in addition to practical training in dealing with students and carrying out appropriate educational programs for them (Qatanani, 2007).

The researcher defines it procedurally: it is the program that designed to qualify special education teachers within the Arab colleges in East Jerusalem.

Students of special education teacher qualification programs: Procedural: They are special education teachers in the East Jerusalem area who teach in the three Arab special education teacher training colleges (Sakhnin College, Al Qasimi College, and David College (Arabic Section)).

5 STUDY LIMITS AND DETERMINANTS

The current study is determined as follows:

- Objective limits: The degree of use of computerized technologies in the rehabilitation program for special education teachers in East Jerusalem and the extent of their effect on their performance in practical applications;
- Human limits: The current study was limited to students of the Special Education Teacher Training Program;
- Spatial limits: The study was conducted at teacher training colleges in East Jerusalem;
- Time limits: The study was conducted in the second semester of the academic year (2023).

Determinants of the study: The determinants of the study are the availability of indicators of honesty and stability in the study tool, the extent to which the study sample represents the community from which it is, and the objectivity of the respondents to the paragraphs of the study tool.

6 LAST STUDIES

A number of studies were conducted that sought to identify the degree of use of computerized technologies in teaching people with special needs and their effect, and the current study dealt with a number of them according to the date of their conduct from the oldest to the newest:

Al-Ahmad's study (2015) aimed at monitoring the uses of video modeling in teaching people with mild intellectual disabilities, in which the survey approach was used, and the results of the study stated that the use of video modeling in teaching these students many daily life skills, especially when providing video shots by computer or multiple tablets, is useful, and the results showed the effectiveness of this type of modeling from primary school to adulthood.

Al-Ajmi's study (2015) came with the purpose of identifying the reality of employing e-learning applications in special education schools in the State of Kuwait, using the descriptive survey approach, and the questionnaire was a tool for the study and included four axes, the first examines the importance and the second examines the most used applications, the most effective, then any disabilities are more used for e-learning, and the axis of identifying the student's gender, and the study sample consisted of special education teachers who underwent rehabilitation and training programs for special education teachers, and the results stated the importance of using applications E-learning in schools with students with special needs, and that the most appropriate application is the Internet and smart board, and teachers of learning difficulties ranked first and teachers with mental disabilities ranked last in terms of the use of technology.

Study of Mustafa (2019) The study designed to identify the reality of the use of educational technology in teaching people with mild intellectual disabilities that can be learned from the point of view of their teachers, and also aimed to identify the role of variables of gender, age, specialization, years of experience, and academic qualification on the reality of this use. The researcher also used the descriptive analytical approach, and the two tools of the study were: questionnaire and interview The results of the data analysis showed that there is a great agreement in the respondents' responses about the reality of the use of educational technology in teaching Total degree with a degree Response (75.4) in that employing educational technology in the teaching process is necessary, because of its several advantages, and the results showed that there were no statistically significant differences at the level of significance ($0.05 \geq \alpha$) between the averages of the responses of the sample

members towards the reality of the use of educational technology in teaching people with mild intellectual disabilities that can be learned due to the variables of gender, age and specialization in the total degree of the level of significance, while the variable of years of experience and academic qualification in addition to the differences in the variable of years of experience in favor of less than Five years, in favor of five years to ten, and in the variable of academic qualification in favor of the diploma.

The study of Al-Qamshawiyya (2021) designed to identify the theoretical and philosophical foundations for managing special education programs in light of contemporary ways (the trend of comprehensive integration, the way of activating technology, and the way of community rehabilitation), and how to benefit from it in managing special education programs in the Oman, and to identify its reality, in order to develop special education programs, and the study tool was a questionnaire and quadrilateral environmental analysis was used; The participation of the managers of special education schools in planning training programs for teachers, the lack of qualified administrative and technical staff in some schools where special education programs are applied, and the scarcity of rehabilitation and empowerment centers for entrepreneurship for special education students. The study produced a suggested to develop the management of special education programs, through some theoretical and local premises, including technological rehabilitation.

7 STUDY METHODOLOGY

The study used the descriptive analytical approach for its suitability for the purposes of the study.

7.1 STUDY POPULATION

The study population consisted of all 680 students of special education teacher training colleges, distributed over 3 main colleges.

7.2 STUDY TOOL

To reach the objectives of the study, the researcher developed the study tool using the theoretical literature and previous studies such as the study of Mustafa (2019) and Al-Ajmi (2015), and the tool consisted of (20) paragraph.

7.3 CONTENT AUTHENTICITY

To verify the authenticity of the content of the study tool, it was presented to (10) arbitrators in (educational technology, computer science, and educational administration) in a number of educational institutions in Jerusalem, where they were asked to express their opinions on the tool in terms of linguistic wording, its clarity, and any changes they appropriate. The paragraph was unanimously adopted by (8) arbitrators or more and their percentage (80%) of the arbitrators.

7.3.1 Tool stability

For the purposes of calculating the internal consistency stability of the study instrument, Cronbach's α equation was used based on the data of the first application of the survey sample, and for the purposes of calculating the repetition stability, the application to the survey sample was reapplied by the test method and returned (Test-Retest) at an interval of two weeks between the first and second applications.

Study sample:

Table 1

Frequencies and percentages by study variables

#	Categories	repetition	Percentage%
gender	male	35	14.3
	female	210	85.7
Number of years of experience	Less than 5	47	19.2
	From 5-10	129	52.7
	More than 10	69	28.2
age	Less than 30	103	42.0
	From 30-35	82	33.5
	More than 35	60	24.5
Total		245	100.0%

Statistical Standard:

The Likert pentagon scale was adopted to correct the study tools, by giving each of its paragraphs one score out of its five degrees (strongly agree, agree, neutral, disagree, strongly disagree) and it represents numerically (5, 4, 3, 2, 1) respectively, and the following scale has been adopted for the purposes of analyzing the results:

From 1.00-2.33 a few

From 2.34-3.67 Medium

From 3.68-5.00 large

The scale was calculated by using the following equation:

Upper Scale (5) - Minimum Scale (1)

Number of required categories (3)

5-1 =1.33

3

Then add the answer (1.33) to the end of each category.

Construction honesty:

To verify the validity of the construction of the study tool, it was applied to an exploratory sample consisting of (20) special education teachers enrolled in special education teacher rehabilitation programs in East Jerusalem from the study community and from outside the sample, with the aim of verifying the validity of the internal structure of the tool, by calculating the Pearson correlation coefficients between the paragraphs and the total degree of the tool and the field to which it belongs, and table (2) shows that:

Table 2

Correlation coefficients between paragraphs, the total score, and the field to which they belong

Paragraph number	Correlation coefficient with range	Correlation coefficient with the tool	Paragraph number	Correlation coefficient with range	Correlation coefficient with the tool	Paragraph number	Correlation coefficient with range	Correlation coefficient with the tool
1	.905**	.871**	9	.823**	.726**	17	.834**	.880**
2	.816**	.768**	10	.848**	.804**	18	.834**	.849**
3	.603**	.634**	11	.873**	.813**	19	.895**	.921**
4	.772**	.802**	12	.938**	.877**	20	.866**	.778**
5	.865**	.858**	13	.920**	.871**	21	.930**	.879**
6	.826**	.810**	14	.665**	.712**	22	.621**	.750**
7	.802**	.822**	15	.561**	.813**	23	.659**	.611**
8	.853**	.610**	16	.519**	.693**	24	.737**	.747**

* Statistically significant at the significance level (0.05).

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

It should be noted that all correlation coefficients were acceptable scores and statistically significant, so none of these paragraphs were deleted.

Stability of the study tool:

It is a degree that gives a scale close readings when applied each time. An oscillating tool that gives varying results when applied more than once is a cause for concern and distrust in its results (Al-Qahtani, 2015), so that if the questionnaire is reapplied several times to the same sample, the same results will be obtained. The internal stability of the resolution was measured by Cronbach Alpha coefficient and the table below shows these coefficients.

Table 3

Coefficient of internal consistency Cronbach alpha

Scale/range	Internal consistency	Replay stability	Number of paragraphs
Scale of use of computerized technologies	.931	.897**	6
The reality of the use of computerized technologies in rehabilitation programs	.923	.907**	6
Constraints to the use of technology in teacher training programs	.917	.906**	12
Scale of the use of electronic technologies on practical performance	.914	.928**	6
Academic side	.905	.923**	6
Communication Side	.917	.914**	12

It is clear from the table that these values are suitable for the purposes of this study, as the Cronbach alpha coefficient is between (1) and (0), and in general, if the alpha is less than (0.4), the stability is of low value, and the paragraphs are considered medium stability, as its value is between (0.4-0.7), while the stability is high if its value is higher than (0.7) (Al-Qahtani, 2015).

View Results

Presentation of the results related to the question: What is the degree to which students use computerized technologies in the special education teacher training program in East Jerusalem?

To answer this question, the arithmetic averages and standard deviations of students' use of computerized technologies in the special education teacher training program in East Jerusalem were calculated from the point of view of caregivers.

Table 4

Arithmetic averages and standard deviations of the field of reality of using computerized technologies in qualification programs arranged in descending order according to their arithmetic averages

Rank	figure	Paragraphs	Arithmetic mean	Standard deviation	Grade
1	1	I use computerized technologies in my qualification programs as a special education teacher.	3.94	.828	Large
2	3	Your special education teacher training programs include the use of specific technologies such as educational software or multimedia in teaching students with special needs.	3.93	.738	Large
3	4	The institution or institute where you receive your rehabilitation provides the necessary support for the application and use of computerized technologies within the rehabilitation program	3.88	.795	Large
4	2	Computerized technologies improve your qualification as a special education teacher	3.82	.807	Large
5	5	Enhances the use of computerized technologies and your interaction with the qualification content	3.70	.948	Large
6	6	The institute or institution where you receive your qualification provides the necessary competencies to train you in the use of computerized technologies	3.53	1.034	Medium
		The reality of the use of computerized technologies in rehabilitation programs	3.80	.706	Large

Table (4) shows that the arithmetic averages ranged between (3.53 - 3.94), where paragraph (1), which states "I use computerized technologies in my rehabilitation programs as a teacher of special education" came in first place with an arithmetic average of (3.94) and to a large degree, and paragraph No. (6), which states, "The institute or institution in which you receive your qualification provides the competencies necessary to train you to use computerized technologies" in last place with an arithmetic average of (3.53) and an average degree, and the arithmetic average The field of reality of the use of computerized technologies in the rehabilitation programs as a whole (3.80) and to a large extent.

Presentation of the results related to the question: Which disabilities are most affected by the use of computerized technologies in the special education teacher training program in East Jerusalem?

To answer this question, the arithmetic averages and standard deviations of the most affected disabilities were calculated using computerized technologies in the special education teacher rehabilitation program in East Jerusalem, and the following table illustrates this.

**Table 5**

Arithmetic averages and standard deviations of the field of obstacles to the use of technology in teacher training programs arranged in descending order according to their arithmetic averages

Rank	figure	Paragraphs	Arithmetic mean	Standard deviation	Grade
1	12	Rehabilitation programs should be updated in order to enhance the skills needed to use computerized technologies in teaching students with special needs	3.84	.995	Large
2	11	I need more training and courses on the use of computerized technologies within the Special Education Teacher Training Program in order to better use them in the education of students with special needs	3.72	1.011	Large
3	9	The institute/institution where you receive your training has sufficient infrastructure to use the latest computerized technologies suitable for the training of special education teachers.	3.69	.959	Large
4	10	Those in charge of special education teacher training programs have full knowledge of the use of technology in the learning process for people with special needs.	3.67	.946	Medium
5	7	There is a knowledge gap among special education teachers on the effective use of computerized technologies in teaching	3.59	1.179	Medium
6	8	The institute or institution where you receive your qualification provides sufficient technical support to overcome the technical problems you face while using computerized technologies in education	3.44	1.209	Medium
		Constraints to the use of technology in teacher training programs	3.66	.829	Medium

Table (5) shows that the arithmetic averages have ranged between (3.44 - 3.84), where paragraph No. (12), which states "Rehabilitation programs must be updated in order to enhance the skills necessary to use computerized technologies in teaching students with special needs" came in first place with

an arithmetic average of (3.84) and to a large degree, and paragraph No. (8), which states: "The institute or institution in which you receive your qualification provides sufficient technical support to overcome the technical problems you face while using computerized technologies. In education" ranked last with an arithmetic average of (3.44) and an average degree, and the arithmetic average of the field of obstacles to the use of technology in teacher rehabilitation programs as a whole was (3.66) with an average degree.

Presentation of the results related to the question: What is the degree of impact of the use of computerized technologies in the special education teacher training program in East Jerusalem on performance in practical applications?

To answer this question, the arithmetic averages and standard deviations of the effect of using computerized technologies in the special education teacher training program in East Jerusalem on performance in practical applications were calculated, and the following table illustrates this.

Table 6

Arithmetic Averages and Standard Deviations of the Effect of Using Computerized Technologies in the Special Education Teacher Rehabilitation Program in East Jerusalem on Performance in Practical Applications Arranged in Descending Order by Arithmetic Averages

Rank	number	fields	Arithmetic mean	Standard deviation	Grade
1	1	Academic side	3.78	.688	Large
2	2	Communication Side	3.16	.673	Medium
		Measure the effect of the use of computerized technologies	3.47	.508	Medium

Table (6) shows that the arithmetic averages ranged between (3.16 - 3.78), where the field of the academic side came in first place with the highest arithmetic average of (3.78) and to a large degree, while the field of the communication side came in last place with an arithmetic average of (3.16) and an average degree, and the arithmetic mean of the measure of the impact of the use of computerized technologies as a whole was (3.47) with an average degree.

The arithmetic averages and standard deviations of the estimates of the study sample members were calculated on the paragraphs of each field separately, as follows:

First Field: Academic side:

Table 7

Arithmetic averages and standard deviations of the paragraphs of the academic side are arranged in descending order according to their arithmetic averages

Rank	number	Paragraphs	Arithmetic mean	Standard deviation	Grade
1	2	The use of computerized technologies contributes to improving the effectiveness of your education for students with special needs.	3.97	.891	Large
2	3	The use of computerized technologies has contributed to the diversification and organization of educational activities to meet the needs of all students in the class.	3.89	.932	Large
3	1	The use of computerized technologies contributes to improving the quality of learning for students with special needs.	3.82	.982	Large
4	4	The use of computerized technologies helped enhance your ability to individualize education according to the needs of each student with special needs	3.79	.924	Large
5	6	Computerized technologies used in the education of people with special needs must be improved and developed to better meet their needs	3.64	.901	Medium
6	5	Use computerized technologies to raise your awareness of the needs and aspirations of students with special needs	3.56	1.087	Medium
		The effect of the use of computerized technologies	3.78	.688	Large

Second Field: Communication side:

Table 8

Arithmetic Averages and Standard Deviations of the Most Affected Disabilities Using Computerized Technologies in the Special Education Teachers Rehabilitation Program in East Jerusalem in Descending Order by Arithmetic Averages

Rank	number	Paragraphs	Arithmetic mean	Standard deviation	Grade
1	4	The use of computerized technologies has enhanced the communication skills of students with physical disabilities (visual, hearing,)	3.56	1.053	Medium
2	3	The use of computerized technologies has enhanced the communication skills of students with mental disabilities.	3.40	1.239	Medium
3	5	The use of computerized technologies contributes to removing psychological constraints between students with special needs	3.37	.675	Medium
4	1	The use of computerized technologies has enhanced your ability to communicate with students with special needs.	3.30	.974	Medium
5	6	The computerized technologies used in teaching people with special needs should be improved by increasing their interaction with students	2.79	1.080	Medium
6	2	The use of computerized technologies to raise the level of interaction of students with special needs	2.56	1.229	Medium
Communication Side			3.16	.673	Medium

Table (8) shows that the arithmetic averages ranged between (2.56 - 3.56), where paragraph (4), which states, "The use of computerized technologies enhanced the communication skills of students with physical disabilities (visual, hearing) ranked first with an arithmetic average of (3.56) and an average degree, which is consistent with Al-Ajmi's study and paragraph (2), which states "The use of computerized technologies to raise the level of interaction of students with special needs" came in last place with an arithmetic average of (2.56) With an average score, the arithmetic mean of the field of the communication side as a whole was (3.16) and with an average degree.

Presentation of the results related to the question: Are there statistically significant differences at the level of significance ($0.05 = \alpha$) between the arithmetic averages The degree of impact of the use of computerized technologies in the special education teacher training program in East

Jerusalem on performance in practical applications from the students and the reason for them (gender, age, or experience in using computerized technologies)?

To answer this question, the arithmetic averages and standard deviations of the effect of the use of computerized technologies in the special education teacher training program in East Jerusalem on performance in practical applications from the students' point of view were extracted according to variables (gender, age, or experience in using computerized technologies), and the table below illustrates this.

Table 9

Arithmetic Averages and Standard Deviations of the Effect of Using Computerized Technologies in the Special Education Teachers Rehabilitation Program in East Jerusalem on Performance in Practical Applications from the Students' Point of View by Variables (Gender, Age, or Experience in Using Computerized Technologies)

Variables	Categories	Medium/ fields	Academic side	Communication Side	Overall Scale
gender	male	X	3.92	3.20	3.56
		Y	.419	.662	.459
	female	X	3.76	3.16	3.46
		Y	.721	.676	.515
Experience in using computerized technologies	Less than 5	X	3.76	3.12	3.44
		Y	.621	.620	.497
	From 5-10	X	3.74	3.14	3.44
		Y	.775	.661	.525
	More than 10	X	3.86	3.25	3.55
		Y	.544	.729	.480
age	Less than 30	X	3.86	3.17	3.51
		Y	.593	.761	.508
	From 30-35	X	3.66	3.20	3.43
		Y	.742	.572	.481
	More than 35	X	3.80	3.11	3.45
		Y	.749	.645	.546

X = arithmetic mean

Y = standard deviation

Table (9) shows an apparent variation in the arithmetic averages and standard deviations of the effect of using computerized technologies in the special education teachers training program in East Jerusalem on performance in practical applications from the students' point of view according to variables (gender, age, or experience in using computerized technologies) and to show

the significance of statistical differences between arithmetic averages, variance analysis was used Table (10).

Table 10

Analysis of variance of the effect of variables (gender, age, or experience in the use of computerized technologies) of the effect of using computerized technologies in the special education teacher training program in East Jerusalem on performance in practical applications from the students'

Contrast source	fields	Total of squares	Degrees of freedom	Average squares	Y value	Statistical significance
gender	Academic side	.946	1	.946	2.018	.157
	Communication Side	.125	1	.125	.274	.601
	Overall Scale	.440	1	.440	1.708	.193
age	Academic side	.616	2	.308	.654	.521
	Communication Side	.647	2	.324	.717	.489
	Overall Scale	.628	2	.314	1.227	.295
Experience	Academic side	1.739	2	.870	1.845	.160
	Communication Side	.304	2	.152	.337	.714
	Overall Scale	.310	2	.155	.605	.547
mistake	Academic side	112.664	239	.471		
	Communication Side	107.836	239	.451		
	Overall Scale	61.178	239	.256		
Total	Academic side	115.366	244			
	Communication Side	110.358	244			
	Overall Scale	62.951	244			

Table (10) shows that there were no statistically significant differences ($= 0.05$) due to the effect of variables (gender, age, or experience in using computerized technologies) of the effect of using computerized technologies in the rehabilitation program for special education teachers in East Jerusalem on performance in practical applications from the point of view of students in all fields and the total degree, contrary to what was stated in the study of Al-Mustafa.

8 RECOMMENDATIONS

Based on the results of the study, the researcher recommends the following:

1. Enhancing the training of special education teachers within the rehabilitation programs for special education teachers on the use of computerized technologies to ensure their effectiveness;
2. Raising the efficiency and qualification of the staff based on teacher training programs in order to ensure their ability to solve the technical problems facing students in these programs.

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