



## RESEARCH ARTICLE

## Assessing Computer Teaching Efficacy in Secondary Education: A Comprehensive Classroom Observation Study

Zaid Mohammad Khrisat\*

Middle East University, Amman, Jordan

ARTICLE INFO	ABSTRACT
Received: May 22, 2024 Accepted: Jul 4, 2024	This research endeavored to assess the delivery quality of computer skills courses by teachers, measured against established teaching excellence standards. The study encompassed the entire population of secondary schools, totaling 39: 19 for males and 20 for females. From this population, a representative sample of 20 teachers was selected, comprised equally of males and females. To accomplish the study's objectives, specialized tools, including an observation card and document analysis, were developed. These tools were meticulously designed to reflect effective teaching standards specifically for computer educators. After ensuring their validity and reliability, it was discerned that these tools incorporated 53 criteria segmented into three primary domains: Planning, Implementation, and Evaluation. Preliminary findings revealed a moderate general proficiency level in the delivery of computer skills courses to first-year secondary students. Notably, the planning domain exhibited high efficiency, while the implementation and evaluation domains demonstrated average performances. Furthermore, the research identified statistically significant variances in the planning phase, contingent on the teacher's gender, with female educators showing superior outcomes. In contrast, the Implementation and Evaluation phases did not manifest any significant gender-based disparities.
<b>Keywords</b>	
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**\*Corresponding Author:**

### INTRODUCTION

Is witnessing a tremendous development in the contemporary world in the field of knowledge and technology. One of the most important elements of this development is the entry of computers in various areas of life, so that it became necessary in this era, because of the great role it plays in the life of human beings, and the many tasks that can be carried out by his mediation, as well as the computer entered into the formation of various types of devices and equipment. In Jordan, computers have become an educational subject and curriculum that teaches students at various levels of study after going through experimental stages, where computer material is one of the most important educational materials, because it informs students about the computer and its history, parts, equipment, and teaching them how to use it; this material erases the ignorance of the computer among students and helps them use it properly.

Effective teaching is an educational communication tool planned and directed by the teacher to achieve learning goals, and is also a direct product of the teacher's diverse backgrounds, characteristics and

competencies, and is a key factor in creating the right climate for learning, and is also the most influential human element within the school in the personality of students where it helps them to develop habits and skills, and to bring about their learning in a way that excites their motivation and learning (Ibrahim and Abdul Karim, 2011)

The philosophy of the Jordanian educational system aims to form a good citizen who believes in his Lord, who belongs to his Arab homeland and nation, who is full of human virtues, and sleeps in various aspects of personality physically, mentally, spiritually, emotionally and socially. This refines his personality, so that he becomes a good citizen capable of interacting with the requirements of life and the developments of the times, and accordingly Jordanian educational institutions, represented by the Ministry of Education and Jordanian state and private universities, have to enter computers into education, in the hope of meeting the requirements of the times (Al-Khawda, 2009)

There are several dimensions to the problems of teaching computer skills in the Hashemite Kingdom of Jordan, where the first dimension is the typical teaching methods of the teacher, and the teacher's interest in teaching information at the expense of effective teaching strategies and at the expense of the practical application of computer skills, and the lack of interest in activity and practicality, the second dimension is the infrastructure and technical equipment, which appears through problems in internet communication lines, malfunctions of computer devices, lack of maintenance and problems in old devices and software, and the failure to exploit all devices because of malfunctions that can be caused by problems in internet communication lines, failure of computer devices, lack of maintenance and problems in old devices and software, and the failure to exploit all devices because of malfunctions that can be caused. The third dimension is the mistaken belief that the focus of the teaching process is only the book, and when going to the laboratories for practical application, it uses computers as entertainment to open social sites, and watch YouTube, movies and games (Al-Khatib, 2005)

As a result of the factors, objectives and problems mentioned earlier and the nature of the computer material of a practical nature, the teaching of computer skills must be assessed in accordance with effective teaching standards.

### **The problem of the study and its objectives**

Computers are one of the educational materials taught to school students at different levels of school, and this subject is one of the most important educational subjects because it gives them computer culture, and provides them with the ability to innovate effectively in study, and in their future work. Since the teaching of computer skills suffers from many problems in public schools in particular, we need to assess the degree of practice of computer skills teachers for effective teaching standards, and the extent to which effective teaching standards are achieved that ensure that the objectives of the subject are achieved and make it more interesting and effective.

#### **Study objectives:**

This study aimed to identify the necessary criteria for computer skills teachers by building a list of these criteria. This study aimed to identify the reality of computer skill teachers practicing effective teaching standards, and therefore can give a clear and objective picture of the availability of these standards to teachers to the degree of practice, and can be used when developing new computer teacher preparation programmes in the light of effective teaching standards.

#### **Study questions: The study tried to answer the following two questions:**

1. What is the degree to which computer skills teachers are assessed in the first grade of secondary school according to effective teaching standards as shown by the observation of their lessons and the observation of their documents?
2. Are there statistically significant differences ( $0.05 = \alpha$ ) in the grades of evaluation of the teaching of computer skills teachers in the first grade of secondary school in accordance with

effective teaching standards depending on the sex variable?

### **The importance of study:**

The importance of study stems from the importance of computer teaching and the importance of students learning it in an effective way to achieve its objectives, as well as the importance of this study by educating computer skills teachers and supervisors of computer laboratories on the importance of teaching the subject in accordance with the criteria of effective teaching, in order to achieve the objectives of teaching the subject, in addition to raising awareness among teachers about the importance of these standards, and the need to train new teachers and activate these standards in their classes, the more the teacher uses the appropriate teaching methods for the nature of Students and the subject were more involved and motivated to learn more and their learning was therefore more established

This study is distinguished from other studies by focusing on teaching computer skills as a subject rather than using computers in education, since most studies related to computer use in education, the importance of evaluating the degree of practice of computer skills teachers for the first grade of secondary school in accordance with the criteria of effective teaching, and providing results to decision makers in the Ministry of Education, the Directorate of Education and those based on the development of the computer curriculum, to take these results into account before making decisions regarding the teaching of computer skills.

### **Study terms**

#### **Evaluation:**

Odeh (2010, p.29) defined it as "an assessment of the value of the thing as well as a process we do to obtain information, with a view to making a decision concerning: teachers, students, curriculum, programs, schools, and educational policies", and the researchers define it procedurally in this study as measuring the degree of achieving the specifications of effective teaching in teaching teachers to teach teachers computer skills, according to the researcher's observation of teachers' quotas and observation of their documents

#### **Effective teaching and its standards: effective teaching:**

"A social process in which the teacher and the learner interact to achieve specific goals" (Manawar, 2001, p. 343). The procedural definition of teaching is a pattern of teaching used by computer teachers and teachers in the teaching process with criteria, including: planning, implementation and evaluation, in order to achieve the desired educational objectives, measured by observing teachers' classes for the sample of study during teaching according to a list of observations prepared for this purpose, in addition to noticing teachers' documents related to teaching. Its criteria are a set of foundations and rules governing the conduct and development of learning in a motivating and exciting manner. The standards drawn from the teaching experts in this study have been built and the standards for effective teaching of computer skills are built after they have been confirmed to be true. Al-Kahlot (2003, p. 7) also defines computer skills as "the information, skills and trends that students and teachers should acquire regardless of their academic disciplines so that they can handle and teach computers in schools in an interactive manner".

### **The limits and limitations of the study:**

The following limitations were taken into account and in the study the

Limits and limitations of the study are determined by the following: human boundaries:

Limited to computer skills teachers in the first grade of secondary school in Jordanian public schools.  
Spatial boundaries: Spatial boundaries were limited to public schools and temporal boundaries:

The time limits of this study were limited to the second semester of the 2022/2120 school year.

The limitations of the study are the tool used in the study by the researcher, and the possibility of generalizing their results is determined in the light of their sincerity and stability.

### **Previous relevant studies:**

After conducting the general survey of studies related to the subject of the study, previous studies on the subject of the study were classified as: First: Studies on Computer Material: The Beginning of Al-Muhaysin (2003) conducted a study aimed at surveying the reality of informatics in public education in Saudi Arabia from the study and analysis of the reality of informatics education in general education (secondary) in three of the most advanced countries in the field of computer and informatics, namely America, Britain and Japan, to conceptualize a national plan for informatics education based on On reality, developed countries benefit from the expertise in this field. To achieve this, the researcher conducted a field survey of the reality of computer education in a random sample of the kingdom's high schools.

Through the study tool, a questionnaire was collected, and included a survey of the reality of the devices the study found that there is a significant gap between the level of information education in Saudi Arabia and the rest of the three comparison countries. The results of the comparison are in the development of a national plan for the education of informatics in higher education schools in Saudi Arabia. Mintz & Mentz conducted a study to identify the effects of the development of technology in schools. The data was collected by interviewing 52 south African managers in a random manner. The results of the study indicated that technology was needed in schools, where it was used as a tool to improve and develop society as a whole, and that the use of modern techniques in schools improved educational outcomes and the speed with which daily routines were performed, which wasted principal's time. The results also indicated that the role of the director in South Africa had ranked 46th from 47 countries in terms of activating social values, hard work and competitive creative support among students.

In a study conducted by Tibi (2005), the study aimed to reveal the obstacles faced by students and teachers in learning and teaching computer research for the tenth grade in Nablus governorate, and the sample of the study consisted of 386 students and (72) teachers and teachers who did not The computer material, and for the purposes of applying the study, the researcher prepared two questionnaires, one for students and consisting of (52) paragraphs and the other specialized for teachers and consisting of (67) paragraphs and to make sure the content of the two questionnaires was presented to a group of competent arbitrators, and it showed The study is that the most difficult obstacles students face in the field of curriculum is the failure to meet the curriculum for developments in its field, and the failure to apply computer information in practical situations in everyday life. Students do not have time for additional computer training

Al-Sarira (2006) conducted a study aimed at evaluating the content of the computer curriculum used in the higher basic level from the point of view of computer teachers and their tendencies towards teaching it in the departments of education of Karak province. The sample of the study included 83 teachers selected in the random class method, and the researcher developed two questionnaires to collect data from the study sample members, one to evaluate the content and the other to measure teachers' trends. This study reached results and can be classified into two categories: calendar results and trend results for the results of evaluating the content of the computer platform by describing the information in the computer platform as correct and error-free, providing the student content with concepts, knowledge and skills that fit the level of information correlation, results related to trends, the difficulty of learning students basic learning the skills of their rapporteurs, and the development of survey and scientific research skills as a result of computer study

Verber and McLeish (2016Furber & McLeish) conducted a study to understand the challenges teachers face in teaching computer subjects where the sample of the study was made up of students aged 5-16

years in British schools presented to them New computerized approaches to interest and interaction with computer science technologies, which aimed to share best practices that can be adopted on a large scale, to take advantage of computer science along with other sciences, and to give importance to the application of effective teaching and therefore the study was based on interest in computing technologies as a provider For creative thinking among school students so that they can fill digital jobs in the future, this change does not have a fully felt impact on the classroom but it is hoped that it will produce its results in the future.

Second: Studies on effective teaching: Studies on effective teaching were as follows: at the beginning of Searles & Kudeki,1987, in a study that identified the science teacher's advantages for effective teaching from the point of view of the teachers' own principals, the study sample included 28 (81) science teachers randomly selected to fill out the form of the study tool. The results of the study showed the most prominent areas that can be used to guide efforts towards the validity of the teaching of science in general, and the results also showed that the effective science teacher is that individual who is able to study the scientific subject he studies, who is well informed about scientific developments, who mastered teaching skills interacting with students, uses the experiences of students in the conclusion of scientific facts, which takes into account the individual differences between them, conducts laboratory scientific experiments to highlight the importance of scientific experimentation, the laws apply school instructions cooperates With his fellow teachers, consult with them, share with them in solving educational problems.

Osbeck (Ocepeck, 1994) conducted a study focused on identifying the elements of effective teaching as recognized by high school teachers, and the study class on a sample of high school teachers in the American states of Illinois, Indiana, Ohio consisting of (348) teachers, using a form of (42) poverty spread over six areas, and the results indicated that the most important areas of effective education ranked by live practice were as follows: Classroom climate, reinforcement, classroom configuration, questions, finish the lesson (closure) diversification of thrills. The results of the study also found that there was a moral impact of the sex change in the practice of effective education for female teachers, as there was no statistically significant impact on each of the experienced scientifically qualified practitioners on the degree of practice.

### **Commenting on previous studies:**

By looking at previous studies on the subject of the study, it can be inferred: previous studies have varied in the selection of samples studied, such as managers, teachers, and students. Most studies have linked effective teaching in other subjects, and there is no study evaluating the criteria for effective teaching of computer material. This study distinguishes its use of the observation card, unlike all other studies that used questionnaire based on the views of teachers and others.

## **THE METHOD AND PROCEDURES OF THE STUDY**

Methodology adopted this study analytical descriptive approach in order to monitor the degree of teaching of computer skills subject in accordance with the criteria of effective teaching and identify strengths of weaknesses and analysis of data in order to make appropriate recommendations and proposals. The study community and its members are the study community of all 39 secondary schools in the school. 19 Male and 20 female schools, and one teacher were randomly selected to evaluate his teaching in one school. 20 teachers (10) males and 10 females were randomly selected.

### **Study tool:**

A note card was built with the help of previous studies and research that was concerned with effective teaching and teaching of computer subjects, and the use of teacher documents including the lesson plan book, quarterly plan book, calendar records and score records, a gradual measure of the level of practice and application of computer teachers to effective teaching standards was developed to include

areas: planning, implementation, and evaluation when drafting card items for the following: performance should be formulated as a observable procedural formulation. The viewing model items describe this behavior as observable behavior. The grade ladder should be used in card design to determine exactly how well these criteria are met or not.

**Validity of the study tool:**

The validity of the tool has been verified in terms of the affiliation of paragraphs to the area within which it falls, the clarity and integrity of the language formulation of each paragraph of the study tool, in order to present the scale in its initial form to (8) competent and experienced arbitrators and specialists in curricula, teaching and computer science (university professors, educators, supervisors and professors of computer material) and to make adjustments that the arbitrators see on the tool. The purpose of the arbitration was to determine the opinion of the specialists in the tool in terms of: the appropriateness of the paragraphs for this study. The appropriate degree of paragraphs for the area under which they fall. The validity of the paragraphs in linguistic and technical terms. Delete, add, or make the necessary adjustments.

**Stability of the study tool:**

The tool was confirmed and applied to a reconnaissance sample from outside the study sample and from the study community, and the researcher attended a class share of this sample with the participation of an educational supervisor of the computer material, the researcher's estimates and the estimates of the educational supervisor were compared and the researcher calculated the factors Stability between the results, as it was found that the stability ratio (0.704) after deleting (7) paragraphs out of (60) paragraphs, the total number of paragraphs (53) paragraphs, and the paragraphs that were deleted are: Sets educational objectives at a variety of levels and in measurable and observable ways, defines the vocabulary of the lesson accurately, determines how to present the concepts required to explain them, develops comprehensive questions for the purposes of the lesson, provides appropriate feedback, and encourages students to listen to each other, diversifying in the appropriate preparation of the subject of the lesson.

**Variable independent**

- Study variables: sex: Have two categories (male, female).
- Child variable: degree of achieving effective teaching specifications.

**Study procedures:**

The study was carried out through the following stages and steps: reviewing the previous literature to build the study tool, using previous studies and research that was concerned with effective teaching and teaching computer subjects, a gradual measure of the level of practice of applying computer teachers to effective teaching standards, which included dimensions: planning, implementation, and evaluation. Conduct the validity of the study tool and the amendment accordingly, by presenting the tool to competent arbitrators (university professors, educational supervisors, computer teachers) and making adjustments that the arbitrators see on the tool. Conducting a stability test for the tool, the tool was confirmed by applying it to a reconnaissance sample the researcher attended a class share of this sample with the participation of an educational supervisor of the computer material and then compared the estimates of the researcher and the estimates of the educational supervisor, and the researcher calculated the factor of agreement between the results of the two applications, finding that the ratio of agreement was (0.704) and was suitable for the purposes of this study.

By obtaining the necessary approvals for the application of the study tool, the official procedures that allow the application of the scale have been carried out by obtaining a book facilitating the researcher's mission. Collecting study data, the observation tool was applied to high schools for the first grade of the computer skills subject and data collection by observing their classes and noticing their documents. Data

entry and analysis, data were entered and sent to the Statistical Development Center at the Faculty of Education at the University of Jordan and a quality control certificate was obtained.

### Statistical processing

The Statistical Analysis Programme (SPSS) was used to calculate arithmetic averages and standard deviations, and a test (t) was used to identify the differences in achieving effective teaching standards depending on the sex variable. The following criterion for judging averages has been adopted

### THE RESULTS OF THE STUDY AND ITS DISCUSSION

Came the current study to determine the degree of evaluation of the teaching of computer skills teachers in the first grade of secondary school in accordance with the criteria of effective teaching. The results of the study followed by their questions: Results related to the first question: What is the degree of evaluation of the teaching of computer skills teachers in the first grade of secondary school in accordance with the criteria of effective teaching as shown by the observation of their lessons and the observation of their documents?

To answer this question, arithmetic averages, standard deviations, and the degree of evaluation of the teaching of computer skills teachers in the first grade of secondary school have been extracted in accordance with the criteria of effective teaching as shown by the observation of their lessons and the observation of their documents, and the following table shows these results:

**Table 1: Arithmetic averages, standard deviations and the degree of evaluation of the teaching of computer skills teachers in the first grade of secondary school in accordance with the criteria of effective teaching as shown by the observation of their lessons and the observation of their documents, for the subdivisions and the overall degree of the scale ranked downwards**

Grade	Standard deviation	Arithmetic average	Dimensions	Rank
High	.647	3.93	Planning	1
Medium	.758	3.60	Implementation	2
Medium	.850	3.32	Calendar	3
Medium	.692	3.67	Scale as a whole	

Table (1) shows that the overall average assessment measure for the teaching of computer skills teachers in the first grade of secondary school according to effective teaching standards as shown by the observation of their lessons and the observation of their documents was moderately assessed, while the area of planning ranked first with the highest mathematical average and a high rating, followed by the field of implementation with an average rating, while the calendar area ranked last with the lowest average calculation with a medium rating as well.

**The results of this question are subsequently detailed according to the areas of the study tool:**

#### First: Planning:

Table (2) shows results related to the planning area.

**Table 2: Arithmetic averages, standard deviations and the degree of evaluation of the teaching of computer skills teachers in the first grade of secondary school in accordance with the criteria of effective teaching as shown by the observation of their lessons and the observation of their documents, for the planning area ranked downwards**

Grade	Standard deviation	Arithmetic average	Paragraphs	Rank
High	.657	4.30	Prepares a comprehensive plan for each computer module.	<b>1</b>
High	.657	4.30	The plan includes activities to be carried out in teaching the unit.	<b>2</b>
High	.639	4.25	Develops a quarterly or annual general plan for the article.	<b>3</b>
High	.716	4.25	The plan includes appropriate teaching methods to implement the unit's vocabulary and achieve the unit's objectives.	<b>4</b>
High	.716	4.25	Determines the appropriate educational means that will be used to teach the subject.	<b>4</b>
High	.834	4.20	Formulates the overall objectives of the study unit.	<b>6</b>
High	.587	4.15	Defines the vocabulary of the lesson accurately.	<b>7</b>
High	.686	3.95	Distributes unit topics to classes .	<b>8</b>
High	.852	3.90	Analyzes content to procedures and components.	<b>9</b>
High	.875	3.85	Determines the amount and shape of content depending on the time and educational goal	<b>10</b>
High	.834	3.80	Determines the appropriate teaching method or methods for the implementation of the lesson.	<b>11</b>
High	.834	3.80	Determines the classroom activities associated with the subject of the lesson.	<b>12</b>
High	.834	3.80	There is room for intellectual reflection on the teacher's plan.	<b>12</b>
High	.696	3.80	The plan includes the effectiveness of finishing the lesson.	<b>14</b>
High	.851	3.75	Determines the appropriate educational means to carry out the lesson.	<b>15</b>
High	.910	3.75	The plan includes extracurricular activities related to the subject of the lesson.	<b>16</b>
Medium	.671	3.65	Connects activities in software and applications on the computer.	<b>17</b>
Medium	.827	3.50	Identifies special programs and applications to trigger motivation.	<b>18</b>
Medium	.889	3.50	Determines the necessary resources to be used	<b>19</b>



Grade	Standard deviation	Arithmetic average	Paragraphs	Rank
			to teach the unit.	
Medium	.647	3.93	<b>Total degree</b>	

Table (2) shows that the arithmetic averages and the degree of evaluation of the teaching of computer skills teachers in the first grade of secondary school according to the criteria of effective teaching as shown by the observation of their lessons and the observation of their documents, for the field of planning of the scale ranged from (3.50 to 4.3) 0) And to a high and medium degree, where the number of high paragraphs (16) (is a comprehensive plan for each computer module, the plan includes activities to be implemented in the teaching of the unit, develops a quarterly or annual general plan for the subject, the plan includes appropriate teaching methods to implement the unit's vocabulary In response to the unit's objectives, the unit's subjects are distributed to classes, the content is analyzed into procedures and components, determines the amount and form of the content depending on the time and educational objective, determines the appropriate method or methods of teaching to carry out the lesson, determines the classroom activities associated with the subject of the lesson, there is a space for intellectual reflection in the teacher's plan, the plan includes the effectiveness of finishing the lesson, determines the appropriate educational means for the implementation of the lesson, the plan includes extracurricular activities related to the subject of the lesson).

The average paragraphs (3) (linking activities in computer programmes and applications, identifying special programmes and applications to stimulate motivation, determine the necessary resources to be used in unit teaching). The unit, and identifies special programs and applications to provoke motivation) in the last place with the lowest average calculation (3.50) and an average rating.

The arithmetic averages and the degree of evaluation of the teaching of computer skills teachers in the first grade of secondary school according to the criteria of effective teaching as shown by the observation of their lessons and the observation of their documents, for the field of planning of the scale ranged from (3.50 to 4.30) and to a high and medium degree, where they came Paragraphs (a comprehensive plan for each computer module, including activities to be implemented in unit teaching) rank first with the highest average account (4.30) and a high rating, while the two paragraphs (identifying the necessary resources to be used in teaching The unit, and identifies special programs and applications to provoke motivation) in the last place with the lowest average calculation (3.50) and an average rating.

The previous results indicate that there are (3) paragraphs with a medium degree, with two paragraphs (linking activities in computer science programs and applications) and (identifying special programs and applications to stimulate motivation, to a moderate degree, and the researcher attributes this to the fact that computer skills teachers do not plan the implementation of programs and their focus is only on the theoretical side. In his study the importance of teacher planning in identifying special activities and programs to provoke motivation. The paragraph (specifying the necessary resources to be used in teaching the unit) also came to an average degree by noting that most teachers do not exploit the resources available at the school within the possibilities available in diversifying teaching methods, the teacher must identify the appropriate educational means and resources that will be used to teach the unit to ensure more effective teaching (Lutf, 2009).**Area 2: Implementation**

Table (3) shows results related to the implementation area.

**Table 3: Arithmetic averages, standard deviations and the degree of evaluation of the teaching of computer skills teachers in the first grade of secondary school in accordance with the criteria of effective teaching as shown by the observation of their lessons and the observation of their documents, for the implementation area ranked downwards**

Grade	Standard deviation	Arithmetic average	Paragraphs	Rank
High	.641	3.90	Arranges the content in a logical sequence.	<b>1</b>
High	.671	3.85	Gradually moves from simple to more difficult skills.	<b>2</b>
High	.813	3.85	Encourages students to take responsibility and maintain order within the class.	<b>3</b>
High	.696	3.80	Students are involved in mentioning examples of ideas and concepts related to the subject of the lesson.	<b>4</b>
High	.786	3.75	Gives appropriate instructions and instructions to modify unwanted behavior.	<b>5</b>
High	.967	3.75	Uses various enhancement methods (sensory-moral(	<b>6</b>
High	.865	3.70	Uses a suitable view of the content effectively.	<b>7</b>
High	.865	3.70	The teacher communicates effectively with students within the class.	<b>8</b>
Medium	.813	3.65	Inclusiveness, flexibility and addressing individual differences according to the school's available potential.	<b>9</b>
Medium	.875	3.65	Leaves time for dialogue and questions from students.	<b>10</b>
Medium	.883	3.60	The appropriate boot is used for the subject of the lesson.	<b>11</b>
Medium	.883	3.60	Helps students understand and set goals from the subject of the lesson.	<b>12</b>
Medium	.821	3.60	Trains students to identify the main ideas for the subject of the lesson.	<b>13</b>
Medium	.940	3.60	Uses the medium effectively and systematically.	<b>14</b>
Medium	.883	3.60	Gives clear instructions before assigning students a particular activity.	<b>15</b>
Medium	.940	3.60	Uses various activities to teach educational content.	<b>16</b>
Medium	.883	3.60	Uses feedback.	<b>17</b>
Medium	.887	3.55	Helps students link their past experiences to what is learned in the class.	<b>18</b>
Medium	.887	3.55	It is diversified in classroom activities related to the subject of the lesson.	<b>19</b>
Medium	.889	3.50	Allows students to participate positively in the use	<b>20</b>

Grade	Standard deviation	Arithmetic average	Paragraphs	Rank
			of the educational medium, which is the most important computer.	
Medium	.889	3.50	Supports teaching with student-friendly training and takes into account individual differences.	21
Medium	.887	3.45	Uses educational methods that contain the ingredients of a good medium according to the possibilities available at the school.	22
Medium	.851	3.25	Takes into account tribal learning.	23
Medium	.834	3.20	The lesson is linked to scientific applications, programs and applications.	24
Medium	.813	3.15	Takes into account the integration of computer material and other materials.	25
Medium	.758	3.60	<b>Total degree</b>	

Table (3) shows that the arithmetic averages and the degree of evaluation of the teaching of computer skills teachers in the first grade of secondary school in accordance with the criteria of effective teaching as shown by the observation of their lessons and the observation of their documents, for the implementation area of the scale ranged from (3.15 to 3.3 90) And to a high and medium degree, where the number of high paragraphs (8) (arranges content in a logical sequence, gradually moving from simple skills to the most difficult, encouraging students to take responsibility and maintain order within the class, engages students in the mention of examples of related ideas and concepts With the theme of the lesson, it gives appropriate guidance and instructions to modify unwanted behavior, uses various enhancement methods (sensory-moral), uses an appropriate content view and effectively, **effectively** connecting the teacher with students within the class.

The paragraphs that received an average score of (17) (inclusiveness, flexibility and processing of individual differences according to the possibilities available at the school, leaves time for dialogue and questions on the part of students, uses the appropriate introduction to the subject of the lesson, helps students to understand and set goals from the subject of the lesson, trains students to identify the main ideas of the subject of the lesson, uses the means effectively and systematically, gives clear instructions before assigning students a specific activity, uses various activities to teach educational content, uses feedback, helps students to Linking their past experiences with what is learned in the class, varied in classroom activities related to the subject of the lesson, allows students to participate positively in the use of the educational medium, which is considered the most important computer, supports teaching with appropriate training for students and takes into account individual differences, uses educational means that contain the elements of the good means according to the possibilities available in the school, taking into account tribal learning, linking the lesson to scientific applications, programs and applications, taking into account the integration of computer material and other materials).

The paragraph (the content is arranged in a logical sequence) ranked first with the highest average calculation (3.90) and a high rating, while the paragraph (taking into account the integration of computer and other materials) ranked last with the lowest average calculation (3.15) and an average rating.

Second place indicates that the mathematical averages and the degree of evaluation of the teaching of computer skills teachers in the first grade of secondary school according to the criteria of effective

teaching as shown by the observation of their lessons and the observation of their documents, for the field of implementation of the scale ranged from (3.15 to 3.90) and to a high and average degree Paragraph (the content is arranged in a logical sequence) ranked first with the highest average calculation (3.90) and a high rating, while the paragraph (taking into account the integration of computer and other materials) came in first place with the lowest average calculation (3.15) and an evaluation score Medium.

Previous findings indicate that there are (17) paragraphs to an average degree that the researcher will discuss why they do not exist and their impact on effective teaching.

We begin with the paragraphs (teaching supports student-friendly training and takes into account individual differences) and (inclusiveness, flexibility and processing of individual differences according to the possibilities available in the school) this paragraph obtained a medium degree by noting that it is the basis of the presentation of the lesson as al-Qudsi (2011) stated that effective teaching must be an element of flexibility and inclusion available in it, the teacher must be careful to apply it within the classroom, to give confidence to students, and the teacher must address individual differences according to the possibilities available to achieve the desired goals. It supports student-friendly teaching and training in an effort to reach the required learning.

As for the paragraph (leaves time for dialogue and questions on the part of students) it came to an average degree that teachers consider it a departure from the management of the class knowing that it creates a spirit of interaction and exchange of ideas within the classroom, and in the paragraph (the appropriate introduction to the subject of the lesson) obtained a medium degree knowing that one of the most important elements of the presentation of the lesson is the use of the appropriate preface to the subject of the lesson as mentioned by Al-Shabli (2000) that the introduction of the lesson makes the student more willing to learn and therefore more Effectiveness.

In the two paragraphs: (students are trained to identify key ideas for the subject of the lesson) and (help the student to understand and set goals from the subject of the lesson), she received an intermediate degree. Here, the teacher should interact with students by asking some questions during the presentation of the lesson, these questions revolve around the subject of the lesson where students can link the subject of the lesson and determine its educational objectives.

The paragraph (using the means effectively and systematically) obtained an average score, which falls under educational means and activities, and the Lutf Study (2009) stated that the teacher should use new, sophisticated and effectively used educational methods that arouse the motivation of learners as mentioned (Heafne, 2002) in his study. The paragraph (which gives clear instructions before assigning students to a particular activity) also came to an average degree, in order for the teacher to create a kind of interaction and excitement for students, students must be given clear instructions before being assigned to a particular activity and try to provoke motivation in applying it to the practical side.

As for paragraphs: (various activities are used in content training), (diversified in classroom activities related to the subject of the lesson) and (feedback is used), they all also came in a middle grade, and fall under class management and classroom interaction; the diversity element in content teaching makes activities and material more motivating for learners and the use of feedback shows whether or not the goals have been achieved, as confirmed (Rashid, 2000).

The two paragraphs (helping students to link their previous experiences with what is learned in the class) and (taking into account tribal learning) came to an average degree, knowing that one of the most important elements of teaching is attention in previous experiences and linking them with the objectives of the subject of the lesson, and developing the skill of linking students between their previous experiences and what they learn within the classroom.

The paragraphs also came (allowing students to participate positively in the exploitation of the educational medium, which is the most important computer), (linking the lesson to scientific applications, programs and applications) and (uses educational means that contain the ingredients of a good means according to the possibilities available in the school, to an average degree, it is the intelligent teacher who shows his ability to move and diversify from teaching method to another method, and the use of educational means effectively (Khafaja, 2008) so please develop the practice of teachers for these qualifications.

In the paragraph (taking into account the integration of computer and other materials), she received an average degree in the field of implementation, as shown by the observation of the study sample lessons, the observation of their documents, and the advantages of effective teaching, the ability to create a common relationship between computer and other materials, making students more able to solve problems (Al-Rubaie, 2006)

### Domain 3: Calendar

Table 4 shows results related to the calendar domain.

**Table 4: Arithmetic averages, standard deviations and the degree of evaluation of the teaching of computer skills teachers in the first grade of secondary school according to the criteria of effective teaching as shown by the observation of their lessons and observation of their documents, the calendar field ranked downwards**

Grade	Standard deviation	Arithmetic average	Paragraphs	Rank
High	.910	3.75	Asks questions related to different lesson objectives.	1
Medium	.875	3.65	The calendar is practiced at intervals during and during the lesson.	2
Medium	.995	3.60	He asks calendar questions for previous lessons.	3
Medium	.826	3.55	Analyzes, interprets and uses test results to improve education.	4
Medium	1.118	3.25	Students are assigned some homework that they self-correct by searching through the Internet.	5
Medium	.988	3.15	Follows up on homework and home costs.	6
Medium	.887	3.05	The calendar is performed at successive intervals at the beginning, during and at the end of the session.	7
Medium	.887	2.95	Uses various tools to monitor observation for students' progress and linking to information.	8
Medium	.945	2.95	Uses calendar tools suitable for educational purposes.	9
Medium	.850	3.32	<b>Total degree</b>	

Table (4) shows that the arithmetic averages and the degree of evaluation of the teaching of computer skills teachers in the first grade of secondary school in accordance with the criteria of effective teaching as shown by the observation of their lessons and the observation of their documents, for the scale calendar area ranged from (2.95 to 3.75) and to a high and medium degree, where the number of high paragraphs came one paragraph (asking questions related to the different objectives of the lesson)

The number of paragraphs in an average score of (8) paragraphs (the calendar is practiced at intervals during and during the lesson, asks calendar questions for previous lessons, analyzes,

interprets and uses test results in improving education, assigns students some home duties that they self-correct by searching through the Internet, follows homework and household costs, implements the calendar at successive intervals at the beginning, during and at the end of the class, uses various tools to monitor observation for students' progress and linking to information, uses appropriate assessment tools for educational objectives), The paragraph (using calendar tools suitable for educational objectives) ranked last with the lowest average account (2.95) and an average rating.

That the mathematical averages and the degree of evaluation of the teaching of computer skills teachers in the first grade of secondary school according to the criteria of effective teaching as shown by the observation of their lessons and the observation of their documents, for the calendar area of the scale ranged from (2.95 to 3.75) and to a high and medium degree, where they came Paragraph (asks questions related to different lesson objectives) in first place with the highest average calculation (3.75) and a high rating, while the paragraph uses appropriate evaluation tools for educational objectives) in the last place with the lowest average calculation (2.95) and an average rating.

The calendar area came in third place and previous results indicate that there are (8) paragraphs with an average score. We will discuss each paragraph with the effect of its degree on effective teaching: we begin with the paragraph (the calendar is practiced at intervals during and during the lesson) that came to an average degree as most teachers overlook the practice of the calendar during and during the lesson and pay more attention to the final calendar, although the calendar during and during the lesson creates a kind of interaction within the classroom as mentioned al-Qudsi (2011) so teachers must improve the practice of this adequacy.

In the paragraph (there are calendar questions for previous lessons) it came to an average degree as asking questions for previous lessons achieves the following functions: identifying what students are already proficient in the teaching system, identifying changes in students' learning outcomes and defining certain characteristics required by the education process, and finally preparing students to learn, as al-Shabli mentioned (2002)

The paragraph (analyzes, interprets and uses test results in improving education) also came to an average degree, as the teacher should be interested in analysing the test items and interpreting their results so that the evaluation process would become a scientific process that effectively helps to improve the level of learning, avoid errors in the design of test paragraphs and improve teaching and educational performance; In preparation for planning appropriate treatment and training programs for both teachers and students (Odeh, 2010)

The paragraphs (students are assigned some of the homework they self-correct through research through the Internet) and (follow up on homework and home costs) came to an average degree, as it is necessary for effective teaching to feel the student's sense of interaction with the subject and a sense of autonomy by applying self-assessment and self-governing by correcting duties by searching through the Internet and the teacher must follow up these duties because some students need help and instill principles among students to make a difference and progress through these Duties as mentioned (Al-Rubaie, 2006)

From the paragraph (the calendar is carried out at successive intervals at the beginning, during and end of the session). It came to an average degree as the calendar accompanies the teaching process at various stages, obtaining feedback, avoiding shortcomings and benefiting motivation (Abdeslam, 2001)

The paragraphs (using various observational tools for student progress and linking to information) (appropriate assessment tools for educational objectives are used in unit teaching), as well as to a medium degree, the effective teacher has the task of using various tools to monitor students' progress. The teacher also used various tools for the nature of students, educational objectives in teaching the unit were more involved and their desire to learn more, and therefore more effective (Shabli, 2002). Teachers need to be helped to improve their performance in mid-rating paragraphs in an effort to access effective computer skills teaching.

**Results for the second question: Are there statistically significant differences (0.05 =  $\alpha$ ) in the grades of evaluation of the teaching of computer skills teachers in the first grade of secondary school according to the criteria of effective teaching according to the sex variable?**

To answer this question, arithmetic averages, standard deviations, and a "T" test of independent samples were extracted on the dimensions of the assessment scale for computer skills teachers in the first grade of secondary school in accordance with effective teaching standards depending on the sex variable, and table 5 shows these results.

**Table 5: Calculation averages, standard deviations and "T" sample test on the dimensions of the evaluation scale of the teaching of computer skills teachers in the first grade of secondary school according to the criteria of effective teaching according to the gender variable**

Statistical significance	Degrees of freedom	Value "T"	Standard deviation	Arithmetic average	Number	Sex	Dimensions
.018*	18	-2.596	.594	3.61	10	Male	Planning
			.538	4.26	10	Female	
.263	18	-1.155	.810	3.40	10	Male	Implementation
			.688	3.79	10	Female	
.253	18	-1.181	.918	3.10	10	Male	Calendar
			.756	3.54	10	Female	
.112	18	-1.671	.717	3.42	10	Male	Scale_ Total
			.601	3.92	10	Female	

D statistically at the level (0.05 =  $\alpha$ ) table (5) shows that the value of "t" for the planning field of the measure of evaluation of the teaching of computer skills teachers in the first grade secondary school according to the criteria of effective teaching according to the variable (sex) was (-2.5) 96 A statistically significant value at the level of significance (0.05 =  $\alpha$ ) i.e. There are statistically significant differences in the evaluation of the teaching of computer skills teachers in the first grade of secondary school according to the criteria of effective teaching on the field of planning according to the variable (sex) and the differences came in favor of Females. This may be due to female interest in planning more than males, given the nature of females in following the instructions and laws governing work, and their full-time work time more than males in the after-hours.

The table also shows that there were also differences in implementation and evaluation in favour of females as well, but those differences did not live up to the statistical significance, and the table shows that the "T" value of the implementation area of the scale was (-1.155), which is not statistically significant, and for the calendar area reached The value "T" (-1.181), which is not statistically significant, and for the scale as a whole the value of "T" (-1.671) is not statistically significant, indicating that there are no statistically significant differences in the evaluation of teacher teaching Computer skills in the first grade of secondary school in accordance with the criteria of effective teaching in the field of planning

according to the variable (sex) in the areas (implementation and evaluation) and the overall degree of the scale, may be due to the similar school conditions of both sexes.

## RECOMMENDATIONS AND PROPOSALS

In light of the results of the study, it is recommended that computer skills teachers should develop the performance of computer skills by taking into account the planning, implementation and evaluation of the teaching process and their use of the latest teaching methods. Attention to the development of special educational means for computer skills and ensuring that they are provided to teachers and trained to use them effectively. In light of the results of the study, it is suggested that the educational supervision departments of the Directorate of Education should be interested in holding training courses and workshops to train computer teachers, and to inform teachers of the best procedures that should be used in the field of implementation and evaluation to increase the effectiveness of the educational process.

Activating the role of educational activities and practical application supporting creativity that rely on programming languages and encouraging teachers and students to engage in effective activities based on modern means and develop and develop their creativity.

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