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**Research Article** 

# The Use of Computerized Educational Instruction in Iraqi Secondary Schools from Teachers' Viewpoints

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#### **Abstract**

The Purpose of the Study is to investigate teachers' opinions regarding the benefits of computerized educational instruction. It also shows the barriers which hinder the use of computerized educational instruction in Iraqi secondary schools. **Methodology:** This study is pedagogical. The study sample includes (100) Iraqi teachers who are randomly chosen from different secondary schools in the center of Basra city. The researcher uses a questionnaire as a tool to collect data. The questionnaire given consists of two fields: the first field is about the advantages of computerized educational instruction while the second concerns the obstacles to the use of computerized educational instruction in Iraqi secondary schools. Thus, a questionnaire of (28) items, divided into two fields, has been distributed to the participants. For **data entry and analysis**, the researcher uses the Weighted Mean, (W.M.), Percentile Weight, (P.W.) and Spearman-Brown formula.

**Results:** Concerning the benefits of using computerized educational instruction, item no.(14): "computer prepares students for living in an electronic environment" scores the highest P.W. (91%). Item no.(8): "computerized educational instruction stimulates students to practice different educational activities" comes next with P.W. (90%). Regarding the barriers which hinder the use of computerized educational instruction in Iraqi secondary schools, Item no.(19): "the lack of training courses on the use of computer for both teachers and students" comes first with P.W. (95%). Item no.(27): "the insufficiency of computers in secondary schools compared with the large number of students in each classroom" gets P.W. (94%).

**Conclusion:** Most Iraqi teachers believe that the use of computerized educational instruction would be of assistance to students affecting their learning and increasing their enjoyment. Also, they think that the lack of teachers and students' training besides the lack of computers in most schools are the main impediments to the use of computerized educational instruction in Iraqi secondary schools.

Key Words: Computerized Instruction, Benefits, Barriers, Disadvantages, Teachers

الملخص

ان الهدف من الدراسة هو التعرف على آراء المدرسين فيما يتعلق بفوائد استخدام التعليم التربوي المحوسب. كما تبين الدراسة العقبات التي تعيق استخدام التعليم التربوي المحوسب في المدارس الثانوية العراقية. منهجية البحث: ان هذه الدراسة تربوية. تتألف عينة البحث من (100) مدرس عراقي تم اختيارهم عشوائيا من مختلف المدارس الثانوية في مركز مدينة البصرة. استخدم الباحث الاستبيان كأداة لجمع البيانات. يتألف الاستبيان المعطى من حقلين: الحقل الاول حول فوائد التعليم التربوي المحوسب بينما يتعلق الثاني بالعقبات التي تعيق استخدام التعليم التربوي المحوسب في المدارس الثانوية العراقية. وهكذا تم توزيع استبيان مؤلفا من (28) فقرة، مقسمة إلى حقلين، على

المشاركين. لتحليل البيانات وادخالها استخدم الباحث الوسط المرجج, الوزن المنوي ومعادلة سبيرمان- بروان. اهم النتائج: فيما يتعلق بفوائد استخدام التعليم التربوي المحوسب, سجلت الفقرة رقم (14): " يعد الحاسوب الطلبة للعيش في بيئة ذات طابع إلكتروني" اعلى نسبة بوزن مئوي (90%). الفقرة رقم (8): " يحفز الحاسوب الطلبة على ممارسة أنشطة تعليمية مختلفة" جاءت بالمرتبة الثانية بوزن مئوي (90%). فيما يخص معوقات استخدام التعليم التربوي المحوسب في المدارس الثانوية العراقية، الفقرة رقم (19): " عدم وجود دورات تدريبية لكل من المدرسين والطلبة حول استخدام الحاسوب " جاءت بالمرتبة الاولى بوزن مئوي (95%). الفقرة رقم (27): " عدم كفاية اجهزة الحاسوب في المدارس الثانوية مقارنة بالعدد الكبير للطلبة في كل صف" حصلت على وزن مثوي (94%).

الكلمات المفتاحية:التعليم المحوسب, الفوائد, العوائق, العيوب, المدرسين

#### Introduction

The computer is a commonplace phenomenon and it constantly appears as an efficient instrument for storing, updating and presenting knowledge. No doubt, responsible instruction with the computer is indispensable in a society which, in many areas, is affected by it. The current emphasis is on using technology in education to effectively create new opportunities for learning and to promote student achievement. As computers have a decisive importance' young children should be familiar with them. This maintains that children should have access to computers at the primary stage. This is, in fact, because the computer has forced its way into the social essence rapidly [1].

In terms of teaching, the computer has many more uses as an educational instrument. One of the key goals of using technology in schools is to enhance education with a specific focus on the material intended to be taught and to contribute to higher achievement for all students. By dint of computer, one learns to recognize, think creatively and correct his/her mistakes through interactive programming with direct feedback.

Thus, the success of computerized educational instruction in teaching requires that teachers learn how to deal with computers and possess technical information to operate it in order to be able to direct the preparation of computer materials. They also should be intelligent users of computer a matter that guarantees a better use of school technology. Indeed, teachers must think of technology as "key ingredients in making it possible for schools to address core educational challenges" [2]. In the long terms, computer-supported teaching systems should be an integral part of any significant degree at schools.

#### The Problem of the Study

The challenges that face the use of computerized educational instruction in Iraqi secondary schools where there are many impediments that should be overcome.

#### **Theoretical Background**

From the didactic standpoint, computer is viewed as an ideal teaching aid that can be used in a myriad of ways. It is looked upon as "an engine that can be harnessed to existing structures in order to solve . . . the problems that face schools as they exist today" [3]. As teaching and learning tools, computers provide access to a vast array of information and knowledge available for teachers and students alike. They also endow students with a distinctive style of thought and motivate them to think creatively. They help the learner regain an active and independent learning bound with opportunities for self-realisation. Besides, computers have positive effects on students' achievements in the sphere of reading and writing [4]. Not to mention, the use of computer in education yields significant gains in schools where students receive only a few hours of instruction per week. Through computerized educational instruction, students can accomplish concrete and authentic tasks. Therefore, teachers aim at making themselves and their students confident and competent computer users in their interaction with this machine. They exert efforts to know how to take advantage of computer technology in a teaching context and best employ general pedagogical principles.

#### The Advantages of Computerized Educational Instruction

Technology abounds with both advantages and disadvantages and the computer is no exception. Computers are a major technological discovery and their profits are enormous. During the last century, computer plays an ever-increasing role in education and is having an increasing impact in schools. By means of computer, teaching becomes more enjoyable and enables teachers to "devote a great proportion of the class time to something which is beyond the capability of any present or future computer" [5]. Computer also can help teachers in administrative tasks. For instance, it enables teachers to easily keep "student's marks and their personal and academic records permanently up-to-date, produce all required data for school administration and for parents", as well as maintains their subject content such as lesson plans, exercises and evaluation [6].

From Roger's perspective (1996) as cited by Lai and Kritsonis [7], computer technology saves more time and effort on the part of the teacher. It makes students more independent of their teacher which gives the latter more time to concentrate on those parts of teaching that can not be accomplished by the computer, such as "training for essay writing and presentation". Above and beyond, when computer is used beside traditional instruction, it generates "higher academic achievement in a variety of subject areas" [2]. Computers, moreover, can be used for visualization, simulation in education and as an information retrieval system in school libraries. Using computer makes it possible for abstract ideas and concepts to be perceived by students using the images showing on the screen[8]. "Interactive visual media which computers provided seem to have a unique instructional capability for topics that involve social situations or problem solving, such as interpersonal solving, foreign language or second language learning"[9]. Hence, utilizing computers in education makes abstract concepts visible to students who may be discouraged from learning material.

Within the classroom, the integration of computers with the traditional instruction can be beneficial as a tool for facilitating learning. For instance, computer software permits both English language teachers and students to go through a large texts to look for the actual use of certain vocabularies, their usage and definitions along with grammatical features. [10]. Additionally, computer provides opportunities for student-initiated communication through various communicative and interactive activities. "It helps second language learners strengthen their linguistic skills, affect their learning attitude and build their self-instruction strategies"[7].

Computer, further, endows students with self-confidence, increases their interactions and provides better collaboration between students (1). Computer can too be used for electronic communication which can substitute face-to-face communication where computer-assisted discussion provides an equal participation than face to face communication [10]. Above all, computer provides students with a lot of fun games and interesting activities, a situation that reduces the learning stresses and anxieties in addition to promote learners' motivation [7]. Computer gives the learners the chance to "experience the thrill of chasing after knowledge they really want"[3]. With the aid of computers, students learn with greater retention, and have more positive attitudes towards learning and school [2]. So, computer technology is no longer seen as an instructional medium only, but as an essential element of the learning environment and teaching activities.

One of the big contributions of the computer is the opportunity for the shy or inhibited and studious learners to interact with their own instructors or classmates and people outside the classroom by connecting to the Internet. "The web and network-based communication applications, present a wide array of environments for interaction and offers endless source of materials for content-based lessons" [11]. Thereby, computer supplies students with access to a wealth of information and a large number of books and makes them know things that teachers do not [5]. Computers also aid learners to "develop some psychological, social and moral kinds

of thinking" and their sense of self-discipline [3]. It also "extends their personal view, thought, and experience" and offers them multicultural learning opportunities. In this way, students "become the creators not just the receivers of knowledge" [8]. In a word, computer educational instruction is a learner-centered instruction rather a teacher-centered one.

Depending on analytical discussion of the observations of students made at the university of Illinois, Marty [5], maintains that students who used the computerized materials voluntarily were highly motivated. They did practically all their assignments on the computer system and received nearly perfect scores. Marty believes that those students could not achieve this much if they had spent more time on textbooks instead. From Hans's stand point [12], the basic advantage of using computerized materials is that the individual interaction supplied with these materials help the students attain higher level of concentration for a longer periods of time. This is especially useful for learners who have not acquired good study habits and tend to be easily distracted when working at home with their books. Consequently, the higher concentration provided by the computerized materials aids students saving time and results in greater retention.

As a technological means, the benefits of computers include "their dynamic nature, their speed, their increased storage capacity and the increasingly comprehensive range of software that they support" which facilitate for the students the task of exploration and investigation [13]. Added to this, computers can perform several tasks simultaneously. They "capture, analyze, and present data on students' performances during the learning process" [8]. Needless to say that the attached language learning programs of computer is a wonderful stimuli for second language learning. They afford an optimal and a collaborative learning environment for second language students, improve their achievement, carry out their independent studies and permit them to work at the time they select [7]. All these functions of computer entwine with its role in supporting the learner's capability for social contact.

Above and beyond, the computer is a valuable tool in supporting many pedagogical goals. It performs an important function in that it "can count and classify all the errors made by each student and this performance can be shown to the student whenever he wishes" [5]. It can too enable learners "to receive a significant and immediate feedback" [11]. Another major faction is that using computer raises students' motivation for learning and enhances their sense of belonging to a class and promotes solidarity with their peers and teachers [14]. According to a study conducted by El-Semary [15], technology enables a teacher to control his classroom and offers him visual authentic material which support him in his teaching like pictures, diagrams, or a piece of film that is used to show or explain something.

#### The Disadvantages of Computerized Educational Instruction

Even though there are many benefits for computer technology, using computers in the classroom also comes with pitfalls. When new technologies are integrated into the classroom, both teachers and students need to become accustomed to them before they can fully reap the fruits. Lack of confidence in using technology appropriately may be one of the barriers that prevent teachers from using computers effectively in teaching. Further, without the assistance of good technicians, teachers are incapable of using the computer to teach if they are incompetent to solve technical problems. Also, computer malfunctioning contributes to divert the attention of students and "disrupt lessons" [16].

Some flimsy arguments claim that computers and the use of computers dehumanizes society, "aggravates isolation and strengthens the resolution of those who are bent on minimizing the role of humanities in schools" [5]. In other words, people who stay for hours at home to use computer may become anti-social. Computers too lessen the actual experience of thinking by students [17]. On the other hand, Hawkins [13] believes that using computers in schools as a technological teaching aid makes teaching more sophisticated and increases the complexity of possible classroom activities. In spite of its dealing with authentic material, the programmes of computerized educational instruction cannot handle various and ever changing learning

situations, solve unexpected classroom problems or answer sudden questions posed by learners "immediately as teachers do" [7]. Computers also present a big challenge for the teacher who should decide the material they will teach for their students and how it is delivered to them [13].

Additionally, using computers by young children may make their concentration on "learning experiences with less stimulation (e.g., reading books, listening to teachers) increasingly difficult" [18]. More than this, the computer is presented to the learners magically as if it were a human being that can think, understand and perform different functions which will be confused with reality [1]. In Hiltz's perspective (1998) as cited by Wighting [14], computer may have a negative effect if used in schools in that it leads to the loss of social relationships as well as of the sense of community. In addition, the introduction of computers into schools may deprive disabled students or low achievers of teachers' concern [2].

What is more, technology invests money, time and uncertainty of results where teachers are not sure of the promising outcomes for using computers in education. That is, using the computer to teach has made preparing for lessons more time-consuming and more difficult [10]. Not to mention that using computers in schools "will increase educational costs and harm the equity of education" particularly for low budget schools and poor students who cannot buy a computer [7].

Obviously, contrary to a number of sanguine expectations, the computer for others does not represent a panacea for the liberal-education school system. To make a good use of computers in teaching and learning, there should be readiness to assume responsibility, self-confidence and courage on the part of both educators and learners. In fact, the presence of technology per se inside a school will not make significant changes unless teachers become active participants for successful educational use rather than information receivers [6].

#### **Teachers and Computerized Educational Instruction**

Generally speaking, the purpose of computerized educational instruction is to provide the student with a tool designed to help him/her to do his/her homework more effectively so that the teacher can devote a greater proportion of the class time to something which is beyond the capacity of computer. Then, the chief goal of computerized educational instruction is to make a better use of teachers' talents so as to be more valuable but not to replace them. Making instructors more competent can attract students and create powerful education.

It is believable that computers are superior to teachers and could be advantageously replace them [10]. As an opponent, Osuna and Meskill [19] remark that despite the fact that computers provide an intensely visual learning experience and do better than conventional methods in teaching, they cannot compensate for teachers. In the wider context of knowledge, the educational system still has a field of direct teaching activities wherein the very important personal charisma of the educator can have a great influence on students and on his/her success in his/her career.

Nonetheless, teachers can reap the benefits of computerized educational instruction only if they are skilled at the operation of the computer and the preparation of the computerized materials as well. Teachers should select linguistic materials which agree most with the textbooks and a method of teaching which has proved successful in the classroom. They should also make sure that all orders appeared on the screen of the computer are clear and the students can immediately understand their assignments [5]. Additionally, it is beneficial for teachers to select programmes that assist them in performing what they intend [20].

One important point is that computerized educational instruction would be useless if teachers do not use it properly and make it a substitute for creative discussions or practical experiences, if the teacher/student relationship be of an adversary nature and if the educators' role is limited to use all available means to teach the students rather than themselves. In a word, the teachers and learners must view the computer as a supporter that help them in teaching and learning efficiently, not as a slave driver used to handle a difficult task [21].

#### Methodology

This study is pedagogical and analytical. This section is concerned with the procedures adopted by the researcher to fulfill the aims of the study, i.e., the benefits of using computerized educational instruction and the barriers which hinder the use of computerized educational instruction in Iraqi secondary schools from teachers' perspectives. It contains the study limits, the population of the study, sample selection, the steps of constructing of the instrument of the research, finding the validity and the reliability of the instrument besides the statistical means used in the research.

#### The limits of the Research

The study is limited to:

- 1. Iraqi secondary schools teachers in Basra city for the academic year (2015-2016).
- 2.Barriers to the use of computerized educational instruction in secondary schools.

#### The Population of the Study and Sample Selection

The research population is secondary school teachers in the center of Basra city. The sample of study consists of (100) male and female teachers out of (3137) the total number of the population (the General Directorate of Education in Basra province/Planning Department : 2016). They are randomly selected teachers with different specialties, cf. Table (1) and Table (2).

Table (1): Population of the Study

Type of the sample	Total number of the population	Number of the sample	%
Male and Female Teachers	3137	100	3%

Table (2): Sample of the Study

No.	Names of Schools	Gender	Number of teachers
1	AL-Akeeda Secondary School for Girls	Females	10
2	AL-Rajaa Secondary School for Girls	Females	20
3	AL-Abbasia Secondary School for Girls	Female	1
4	AL-Thoaar Secondary School for Boys	Females	2
5	Thgir-Al-Iraq Secondary School for Girls	Females	18
6	Al-Mohubeen Secondary School for Girls and Boys	Males	2
7	Al-Meethaq Secondary School for Boys	Male	1
8	Al-Mutanabbi Secondary School for Boys	Male	1
9	Al-Feilaq Secondary School for Boys	Males	18
10	AL-Fraheedi Secondary School for Boys	Males	11
11	Al-Jmhooria Secondary School for Boys	Male	1
12	Al-Mutorah Secondary School for Boys	Males	10
13	Al-Abtisma Secondary School for Girls	Female	1
14	Al-khensaa Secondary School for Girls	Females	2
15	Al-khlisa Secondary School for Girls	Female	1
16	Alshaheed-Salim halub Secondary School for Boys	Female	1
Total	-		100

#### The Instrument of the Research

The researcher constructs a questionnaire as a tool to collect data according to a number of criteria. First, an open questionnaire is distributed to (20) secondary schools teachers, ten of them are males and ten are females. Later, they are excluded from the sample of research. The questionnaire given consists of two fields: the first field is about the advantages of using computerized educational instruction in secondary schools while the second field of the questionnaire concerns itself with the obstacles to the computerized educational instruction in Iraqi secondary schools, cf. appendix (A). After analyzing the answers of the questionnaire addressed to teachers and have an access to literatures on the topic of study, the final draft of the teachers' questionnaire is formulated. Thus, the first field contains (18) items and the second one involves (12) items.

#### The Validity of the Instrument

To achieve face validity, the questionnaire is distributed to a jury that consists of five experts in the fields of Educational Guidance and Psychological Sciences, cf. Table (3). They were asked to give their viewpoints and remarks as well as suggestions concerning the adequacy of the items of the questionnaire. The jury have agreed that the items are adequate and appropriate to achieve the aims of the research and suggested some slight modifications. The proportion of the agreement is (80%). Hence, some items have been deleted, some of which have been modified and others are added. Consequently, the (30) items of the questionnaire are reduced to (28) after modification, cf. appendix (C).

Table(3): Names Of Jury

No	Names of Jury	Specialty	Place of Work
1	Dr. Talib Serahan Al-	Psychological Sciences &	Open Educational
	maliki	Educational Guidance	College in Basra
2	Dr. Buthaina Sabti	Psychological Sciences	Open Educational
			College in Basra
3	Dr. Abd AL-Kreem	Psychological Guidance	Open Educational
	Khalaf		College in Basra
4	Dr. Kamal Moony Al-	Psychological Health	Open Educational
	Amara		College in Basra
5	Assist. Lecturer	Psychological Sciences &	Open Educational
	Najoom Ashoor	Educational Guidance	College in Basra

#### The Reliability of the Instrument

The reliability of the instrument is assessed through using odd-even reliability by isolating the odd and even items where the reliability of one of the test parts is (0.72). After adjusting the reliability by using Spearman-Brown formula, it reaches (0.83) which is a coefficient of reliability that can be trusted and relied on.

#### The Application of the instrument

After the reliability of the instrument is fulfilled, the final version of the instrument is handed out to teachers between November/ 2015 and December/2015. Before replying to a questionnaire, the participants have been given some instructions on how to fill in the questionnaire. The researcher also illustrated to them the research purposes, cf. appendix(B).

#### The Statistical Means

The researcher uses the following statistical means:

1. The Weighted Mean to find out the most common barriers to computer use in Iraqi secondary schools from the viewpoint of teachers, where the first alternative (always) is given three

degrees, two degrees for the second alternative (sometimes), and one degree for the third alternative (rarely). So, the highest degree for the most common benefit and barrier is (3) and lower [22].

$$\bar{x} = \frac{\sum_{i=1}^{n} x_i w_i}{\sum_{i=1}^{n} w_i}$$

 $\overline{X}$  = the Weighted Mean w = the Percentile Weight x = the measured variable

2. The Percentile Weight to show the relative value of each variable of the study variables, and to make use of it in the interpretation of the results.

The Percentile Weight = 
$$\frac{\text{the Weighted Mean} \times 100}{\text{the Highest Degree in the Scale}}$$

3- The data will be displayed and discussed according to their rank and order with reference to the Weighted Mean and Percentile Weight (4).

#### **Results and Discussion**

This section sums up the results which is arrived at and subsumes a discussion of them in terms of the objectives of the research. The items of the questionnaire for each field is arranged in a descending order according to their importance as well as their Weighed Mean and the Percentile Weight. The researcher will discuss the first four items, in each field, since they get higher W.M. and P.W. than the other items in the questionnaire.

## First Field: Benefits of Computerized Educational Instruction from Teachers' Viewpoints

As demonstrated in Table (4), the results of the of the first field of the questionnaire, regarding the advantages of computerized educational instruction in secondary schools, show that item no.(14), which reads that "computer prepares students for living in an electronic environment", comes first. It has a W.M. (2.73) and a P.W. (91%). Most instructors agree that using computers in teaching and learning processes makes students acquainted with computer technology and live in a learning environment where every material is taught and learnt by using computer. Besides, living in such atmosphere can accelerate student's intellectual development and increase their knowledge and experience.

Item no.(8), which states that "computerized educational instruction stimulates students to practice different educational activities", and item no.(11) that reads "computer keeps pace with the latest findings of science in all fields", come next. They get a W.M. (2.72) and a P.W. (90%) respectively. Concerning item no.(8), a considerable number of teachers emphasize that computerized educational instruction creates positive learning environment in which students overcome shyness and interact with the teacher taking part in a variety of classroom actions. In fact, using computer technology in schools has profound effects on students. It provides a free and a fascinating environment for learning, one that attracts students and makes it possible to learn without tensions and pressures. Needless to say, it makes lessons more diverse, fun and enjoyable for students. In regard to item no. (11), teachers find that computers make students stay in line with the latest findings of science in all fields. They induce a certain vision of the world and through the Internet they provide students an access to all sorts of information not available through other means. In this way, computers develops self-control and enhance imagination.

Item no. (12) occupies the third rank. It has a W.M. (2.38) and a P.W.(79%). Some teachers think that computers prepare students for different kinds of future careers. Indeed, use of computer in schools equips\_students with work experience and an opportunity to get a job

because most professions nowadays demands advanced training and experience in using computer. Also, the optimal use of the technology will be essential for the individuals in the professional working place and those who do not master computers will not keep pace with the outside world. Item no.(4) which mentions that "computerized educational instruction helps students to retain and memorize any information they learn" gets the fourth rank. It has a W.M. (2.37) and a P.W. (79%). Teaching and learning via computer help save materials through showing photos and videos related to these materials on screen, thereby the mind can save materials faster when they are linked to images. Computerized educational instruction also stimulates students to think creatively, perceive and understand, a matter which facilitates their memorizing and remembering of the study material.

Table (4): Items Discussed in the First Field

No.	Rank	Items	The Weighted MEAN	The Percentile Weight
14	1	Computer prepares students for living in an electronic environment.	2.73	91%
8	2	Computerized educational instruction stimulates students to practice different educational activities.	2.72	90%
11	3	Computer keeps pace with the latest findings of science in all fields.	2.72	90%
12	16	Computer prepares students for different types of future occupations.	2.38	79%
4	17	Computerized educational instruction helps students to retain and memorize information.	2.37	79%
10	18	Computer helps in students' assessments and reveals their mistakes.	2.3	76%

### Second Field: Barriers to the use of Computerized Educational Instruction in Iraqi Secondary Schools from Teachers' Perspectives

As to the teachers' viewpoints about the barriers to use of computerized educational instruction in Iraqi secondary schools, item no. (19) which refers to "the lack of training courses on the use of computer for both teachers and students", receives the lion's share. It comes first with a W.M. (2.87) and a P.W. (95%). The majority of teachers believe that lack of training in the uses of computer technology and its programmes is one of the most serious obstacles to computerized educational instruction in Iraqi secondary school. Most teachers receive no training on how to use computer in teaching or in other fields of knowledge which has negative effect on their students. To overcome this barrier, educators and government should rearrange their priorities and devote a larger share of their efforts, financial and human resources to designing lessons about the use of computers, the effective solutions to technical problems of computers and organizing workshops for both teachers and students, cf. Table (5).

Item no. (27) which refers to "the insufficiency of computers in Iraqi secondary schools compared with the large number of students in each classroom" comes next. It gets a W.M. (2.82) and a P.W. (94%). The unavailability of computers in Iraqi secondary schools hinders the effective use of classroom technology and is considered the main obstacle in that respect. In a result, students will not be competent enough to utilize computers in future because they do not have the chance to use it while they are in school. In addition, Basra city suffers from a grave shortage of school buildings and some of these schools have few classrooms which are rather small, and usually overcrowded with (45 or 50) students. To remove this barrier, Iraqi ministry of education should firstly build new secondary schools to lessen the number of students in each classroom. Secondly, it should supply these schools with sufficient number of

computers equal to the number of students so that each student could have a chance to use a computer, cf. Table (5).

Item no. (26) which refers to "the lack of a computer technician in most secondary schools", obtains the third rank. It has a W.M. (2.58) and a P.W. (86%). Teachers agree that the absence of computer technicians in most Iraqi secondary schools is an obstacle since using computer programmes necessitates a qualified person able to deal with it. Added to this, most teachers do not receive enough or no training on how to handle technical problems. Item no. (24) which reads that "computer reduces the role of teachers in classroom", occupies the fourth rank. It gets a W.M. (2.05) and a P.W. (68%). Some teachers think that using computerized educational instruction replaces the role of the teachers in schools as masters of the situations in classrooms. However, using computerized instruction gives teachers more control in classroom and helps make their presentation more interesting. Besides, teachers should use computer technology in teaching because they are demanded to teach students not only specific information but also socialization, discourse strategies and communication and this is not achieved by a teacher alone. This, in turn, will make their students not only information receivers but an active participants; encourage them to interact with each other and perform classroom activities with enjoyment. Even so, no computer can completely substitute a teacher, though it relives him/her of the routine burden of putting over linguistic materials. So, the role of the educator in conjunction with the computer is indispensable for the learning process to succeed. Computer is best used with the instruction of a teacher and not when it replaces the teacher (1). In sum, computerized instruction should be an instrument in the hands of the teachers and use it only to try to meet the pedagogical objectives. Students also have to view the computer system as an ally ready to assist them learn competently not as a slave driver, cf. Table (5).

Table (5): Items Discussed in the Second Field

No.	Rank	Items	The Weighted Mean	The Percentile Weight
19	1	The lack of training courses on the use of computer for both teachers and students.	2.87	95%
27	2	The large number of students and the lack of computers.	2.82	94%
26	3	The lack of a computer technicians in most secondary schools.	2.58	86%
24	8	Computer reduces the role of teachers in classroom.	2.05	68%
25	9	Computer hinders invention and creativity for students limiting their thinking.	1.97	65%
28	10	Computer causes study burden.	1.72	57%

#### Conclusion

The findings of the research show that most Iraqi teachers agree that the use of computerized educational instruction in secondary schools would be of assistance and benefit to students. Also, they think that the lack of teachers and students' training on the use of computer, the insufficiency of computers in most schools in addition to the lack of a computer technicians are the main impediments to the use of computerized educational instruction in Iraqi secondary schools.

#### Recommendations

For computer technology to be beneficial and achieve instructional goals, the researcher offers a number of recommendations:

- 1- In order for students to be capable of using and operating computers successfully, students should be familiar with them from the very beginning at the primary stage or pre-school age.
- 2- To provide teachers with a clear vision of the instructional uses of computer, and what problems are expected to occur, teacher's technical training should be an integral part and one of the priorities of Iraqi ministry of education strategy.
- 3- The educational institution in Iraq should take into account the tremendous progress in computer technology. Hence, it is suggested that technology be integrated into the instructional framework and the education system be adjusted accordingly.
- 4- Administrators and teachers should receive adequate and continuing education and training about how to best integrate technology within their methodologies and courses and should be evaluated on their proficiency in doing so.
- 5- Computerized materials should be based on a method of teaching that has proved successful in the classroom with taking into account the learners' needs and interests.
- 6- Computers should be available abundantly in Iraqi secondary schools to be utilized by all students.

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#### **Appendixes**

#### Appendix (A)

Dear teacher, the researcher aims to conduct a study entitled "The Use of Computerized Educational Instruction in Iraqi Secondary Schools from Teachers' Viewpoints." Being one of the research sample, the researcher offers you the following questionnaire requesting you to give your opinion. Needless to mention your name. Thanks for your response.

- 1. What are the benefits of computerized educational instruction in teaching from your viewpoint ?
- 2. What are the impediments to the use of computerized educational instruction in Iraqi secondary schools from your viewpoint

The researcher: Arafat Abd Ali Alabbad

#### Appendix (B): The Questionnaire

Dear teacher: The researcher intends to conduct a study entitled "The Use of Computerized Educational Instruction in Iraqi Secondary Schools from Teachers' Viewpoints." Being one of the study sample, please read the items of the questionnaire accurately and choose the most appropriate one from your viewpoint and do not neglect any item. Thanks for your response.

First Field: Teachers' Viewpoints about the Advantages of Using Computerized Educational Instruction In Secondary Schools

NO	Items	Always	Sometimes	Rarely
1	Using computerized educational instruction helps innovations in teaching methods.			
2	Using computerized educational instruction helps in the success of education process.			
3	Computerized educational instruction enhances students' interaction and encourage their participation in classroom activities.			
4	Computerized educational instruction helps student to retain and memorize information.			
5	Computerized educational instruction increases students' motivation to learn.			
6	Computerized educational instruction saves time and effort.			
7	Teaching by computer is better than traditional methods.			
8	Computerized educational instruction stimulates students to practice different educational activities.			
9	Computer is characterized by accuracy and speed in presenting materials.			
10	Computer helps in students' assessments and reveals their mistakes.			
11	Computer keeps pace with the latest findings of science in all fields.			
12	Computer prepares students for different types of future occupations.			
13	Computer encourages students to process information.			
14	Computer prepares students for living in an electronic environment.			

15	Computerized educational instruction makes learning more enjoyable.		
16	Computerized educational instruction provides students with an instant feedback.		
17	It is easy to use computer for its available software.		
18	Learning by computer is characterized by independence and autonomy.		

Second Field: Teachers' Viewpoints about the Barriers to the Use of Computerized Educational Instruction In Iraqi Secondary Schools

	Educational instruction in riaqi occordary ocnools					
NO	Items	Always	Sometimes	Rarely		
19	The lack of training courses on the use of computer for both teachers and students.					
20	Computerized educational instruction needs long time.					
21	Good educational programmes are costly and difficult to setup.					
22	Educational programmes need experience and skill that most teachers may not have.					
23	computer programmes pay little attention to motor and social skills of students.					
24	computer reduces the role of teachers in classroom.					
25	computer hinders invention and creativity for students limiting their thinking.					
26	The lack of a computer technicians in most secondary schools.					
27	The insufficiency of computers in Iraqi secondary schools compared with the large number of students in each classroom					
28	Computer causes study burden.					

# Appendix (C): Responses of the Secondary Schools' Teachers in the Center of Basra city First Field: Teachers' Viewpoints about the Advantages of Using Computerized Educational Instruction

NO	Items	Always	Sometimes	Rarely
1	Using computerized educational instruction helps in innovations and in teaching methods.	61	32	7
2	Using computerized educational instruction helps in the success of educational process.	61	34	5
3	Computerized educational instruction enhances students' interaction and encourages their participation in classroom activities.	61	33	6
4	Computerized educational instruction helps student to retain and memorize information.	55	27	18

5	Computerized educational instruction increases students' motivation to learn.	70	26	4
6	Computerized educational instruction saves time and effort.	71	23	6
7	Teaching by computer is better than traditional methods.	60	31	9
8	Computerized educational instruction stimulates students to practice different educational activities.	63	30	7
9	Computer is characterized by accuracy and speed in presenting materials.	74	24	2
10	Computer helps in students' assessments and reveals their mistakes.	46	38	16
11	Computer keeps pace with the latest findings of science in all fields.	75	20	5
12	Computer prepares students for different types of future occupations.	52	34	14
13	Computer encourages students to process information.	61	29	10
14	Computer prepares students for living in an electronic environment.	76	21	3
15	Computerized educational instruction makes learning more enjoyable.	72	22	6
16	Computerized educational instruction provides students with an instant feedback.	53	35	12
17	It is easy to use computer for its available software.	61	31	8
18	Learning by computer is characterized by independence and autonomy.	65	26	9

Second Field: Teachers' Viewpoints about the Barriers to the Use of Computerized Instruction in Secondary Schools

NO	Items	Always	Sometimes	Rarely
19	The lack of training courses about the use of computer for both teachers and students.	89	9	2
20	Computerized educational instruction needs long time.	59	32	8
21	Good educational programs is costly and difficult to setup.	50	39	11
22	Educational programs need to experience and skill that most teachers may not have.	45	37	18
23	computer programmes pay little attention to motor and social skills of students.	30	55	15
24	Computer reduces the role of teachers in classroom.	33	39	28
25	Computer hinders invention and creativity for students limiting their thinking.	26	45	29
26	The lack of a computer technicians in most secondary schools.	65	28	7
27	The insufficiency of computers in Iraqi secondary schools compared with the large number of students in each classroom.	86	10	4
28	Computer causes study burden.	15	42	43

## Appendix (D): The Weighted Mean and The Percentile Weight of the Items of the Questionnaire

## First Field: Teachers' Viewpoints about the Advantages of Using Computerized Educational Instruction in Secondary Schools

No	Rank	Items	The weighted mean	The percentile weight
14	1	Computer prepares students for living in an electronic environment.	2.73	91%
8	2	Computerized educational instruction stimulates students to practice different educational activities.	2.72	90%
11	3	Computer keeps pace with the latest findings of science in all fields.	2.72	90%
5	4	Computerized educational instruction increases students' motivation to learn	2.66	88%
15	5	Computerized educational instruction makes learning more enjoyable.	2.66	88%
6	6	Computerized educational instruction saves time and effort.	2.65	88%
2	7	Using computerized educational instruction helps in the success of education process.	2.56	85%
9	8	Computer is characterized by accuracy and speed in presenting materials.	2.56	85%
18	9	Learning by computer is characterized by independence and autonomy.	2.56	85%
3	10	Computerized educational instruction enhances students' interaction and encourage their participation in classroom activities.	2.55	85%
1	11	Using computerized educational instruction helps innovations in teaching methods.	2.54	84%
17	12	It is easy to use computer for its available software.	2.53	83%
7	13	Teaching by computer is better than traditional methods.	2.51	84%
13	14	Computer encourages students to process information.	2.51	83%
16	15	Computerized educational instruction provides students with an instant feedback.	2.41	80%
12	16	Computer prepares students for different types of future occupations.	2.38	79%
4	17	Computerized educational instruction helps students to retain and memorize information.	2.37	79%
10	18	Computer helps in students' assessments and reveals their mistakes.	2.3	76%

# Second Field: Teachers' Viewpoints about the Barriers to the Use of Computerized Educational Instruction in Iraqi Secondary Schools

No.	Rank	Items	The weighted mean	The percentile weight
19	1	The lack of training courses on the use of computer for both teachers and students.	2.87	95%
27	2	The insufficiency of computers in Iraqi secondary schools compared with the large number of students in each classroom.	2.82	94%
26	3	The lack of a computer technicians in most secondary schools.	2.58	86%
20	4	Computerized educational instruction needs long time.	2.49	83%
21	5	Good educational programs are costly and difficult to setup.	2.39	79%
22	6	Educational programs need experience and skill that most teachers may not have.	2.27	75%
23	7	computer programmes pay little attention to motor and social skills of students.	2.15	71%
24	8	Computer reduces the role of teachers in classroom.	2.05	68%
25	9	Computer hinders invention and creativity for students limiting their thinking.	1.97	65%
28	10	Computer causes study burden.	1.72	57%