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The Problems Facing Computer Teaching in Najaf Governorate and find appropriate solutions

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Abstract: This study aims to identify the problems facing computer teaching in the Governorate of Najaf and finding appropriate solutions to these problems by conducting a realistic study of the schools that teach a computer class. We have taken a sample of 15 schools from schools that teach computer class in the Governorate of Najaf and conducting three questionnaires for computer teachers and school students and proposing appropriate solutions to these problems.
The three questionnaires were:

1. The first questionnaire consisted of 80 teachers who asked a number of questions and answered them. Details the answers of the questions explained during the research.
2. The second questionnaire was collected from 100 students who are studying computer.
3. The last questionnaire was collected from 100 students, who are studying at schools that do not teach computer subjects in their curricula.

The solutions suggested by the researchers are the need to rehabilitate computer laboratories, updating the computer curriculum, consideration of computer curriculum as one of the main classes at schools, lastly rehabilitation and training of teaching staff.

Key words: Computers, problems, students, curricula, teachers.

I. INTRODUCTION:

Teaching in Iraq suffers in general from a deep crises caused by the harsh conditions encountered by our country during the past decades such as wars and changes in regimes and some economic crises , it left negative effects on all the fields of life including education. This crises included all aspects of teaching in Iraq including the teacher and student and curricula and the weakness of teaching staffs because of the disconnection with the outer world and these staffs were not lectured about computers and modern technology and it were taught a classic teaching methods that are not consistent with the development witnessed by the modern world. And also the students in Iraq since primary schools were taught according to old styles that don't consist with the modern life and the way of thinking of the student and teacher in the era of development and technology.

The problem of the research:

The development of IT technology in the world led to the increase of challenges in the informatics era, it is difficult to be in line with the development and applying the basis of modern systems to enhance education in Iraq , and the most important problems that led to the lack of applying are:

1. The problem of computers curricula, because these curricula in the secondary and high schools contains unpadded chapters and subjects and not consistent with each other and the lack of mechanism to update them continuously.
2. The lack of perfect labs, these labs are old and not qualified to be in line with the development.
3. The increase in the no. of students continuously, the no. of students in one classroom may be more than 50, with the small no. of computers in the labs that hinders teaching the computers subject practically.
4. The problem of the low no. of lectures for computers subject , one lecture per week that led to the students not benefitting from this subject.

The importance of the research:

The importance of the research is shown by asking the following question: what are the problems facing teaching computers in Najaf province specially and in Iraq in general? Then trying to identify the most

dominant of these problems by conducting a realistic study by taking samples from the schools that teaches computers and also the researchers conducted a survey for some computer teachers and some students in the governorate , and how to find the solutions for the problems that are hindering the development of teaching computers and making it in the level we aspire to and we shall have positive results to provide realistic and simple solutions for the problems we set out according to a field study about the reality of teaching computers.

The first topic: studying computers:

First: the role of computers in developing the teaching institutions:

The study of computers started in Iraq in a delayed time, the first curricula for computers in Iraqi schools were made in 2007, our era is distinguished with advanced technology in the field of informatics and communication systems. the most important reasons that made it necessary to use computers such as:

1. Adding the updates of the era and the necessity that the teacher should know about the computer and its uses and use it in teaching, the studies asserted the important role of computer in the educational operation.
2. The computer is featured with a group of features such as (speed, precision, big storage memory , diversity of information, flexibility in using it, controlling the displaying method) that makes it a lot better than a lot of info displaying devices such as books, audio and video means.

Second: the advantages of using the computers in education:

1. The computer solve all the digital problems because it is provided with the programs that enables it to solve any problem entered to it as data, it processes it in a very fast speed up to billions of mathematical operations per second.
2. The computer is used in medicine and engineering , it runs the medical devices and monitors the patients status in the ICU room and records some information about the patients and also used in conducting medical researches, and in engineering .
3. The computer acts as a recorder of documents in all the government official and semi official dept.

The second topic: teaching computers in Najaf Governorate: First: strategy of teaching computers in Najaf Governorate:

The high schools in Najaf Governorate is subject to the same regulations as the other Iraqi provinces, the computers are taught in its schools in the seventh and eighth and ninth grades and in the tenth and eleventh and twelfth grades, despite that some of them are not included in teaching computers until now, it is noticed that most students are heading towards schools that teaches computers because of their desire to learn the computers subject.

Second: the hindrances of teaching by computers in Najaf province specially and in Iraq in general:

Despite the variety of advantages in teaching by computers but the education institutions in Najaf are still facing a lot of challenges in order to achieve a successful education by using computers in different sectors in Iraq, and the most important of these hindrances are:

1. Not developing the curricula: teaching by using computers is facing difficulties that might hinder its spread, the most important of these hindrances are the curricula , the curricula in the seventh grade contains the following vocabulary: (computer components, operating system, text processor, presentation programs) and the curricula of the eight grade contains the following vocabulary: Microsoft 2003 excel, computer networks, internet, emails, these subjects are old and were not updated, the tenth grade curricula contains the following subjects: computers in general, windows XP operating system, Microsoft office 2003, introduction to visual basic 6, introduction to the internet, the curricula of the eleventh grade contains the following subjects: Microsoft office access 2003, visual basic 6, computer viruses, preparing and installing the operating system windows xp professional. So These subjects that are taught in the curricula are old.
2. Not rehabilitating the labs, because there are great shortages in the computers in the labs , there no. is low and most of them are broken and the lack of maintenance for these devices.
3. The lack of clear strategy of the competent parties regarding teaching computers subject

Third: the positive aspects of using computers in education:

There are a lot of positive aspects in teaching computers in Najaf province and the most important of them are:

1. By using computers the student learns how to use computers in a correct way and work on some

of the programs existing the curricula such as the Microsoft office suite (word, excel, access, power point) and some programming languages such as (visual basic).

2. Develop the students scientific and cultural skills that makes them capable of gaining the info they need by using the web and also the speed and preciseness of accessing the info and preparing the reports and researches of their study each according to his specialty.

3. The preserving of time: The preserving of time is useful and important for both the teacher and student, the student has the ability of immediate access of info in the place and time he chooses and that leads to preserve the time.

4. Decrease the effort of using the classic methods and replace it by using the computer in the school, teaching by using computers provided tools that analysis grades and results and exams and provides statistics about it and also sending students files and records to the schools registrar.

Fourth: comparing using classic education and education by computers:

Table (1): Comparison between the use of traditional education and Education by using computer:

Education by using Computer	Traditional Education
Introduces a new kind of culture which is an electronic culture that focuses on developing students' skills and helps the student to be the focus of the learning process rather than the teacher.	Depends on the traditional culture and focuses on the delivery of scientific material to students, and the teacher is the basis of the learning process
Students are participants in the learning process and they receive the information that they want in the time and suitable place for them.	The students here are only recipients and they limited in time and place (classroom)
Students have the freedom to communicate with the teacher at the time that they wish and ask the questions their teachers by using the social media.	Determine the communication between student and teacher at the time of the lecture only, so that some students have no the opportunity to ask their questions to the teacher.
The subjects are constantly updated because most of these subjects are electronic subjects are easy to update.	The subjects in traditional education are fixed without updating for a long time.
Use all available teaching aids (including Smart board or Data show and ets).	A small number of teaching aids are used, and often the teacher is explaining verbally.

Third topic: the former studies about use computers in the education, and a realistic study conducted by the researchers is:

First: The former studies about computers in the education: the most important studies are:

1. The US experiment in using the computers in education: the computers were introduced to education in the fifties and the experiment increased in the 21 century , the research prepared by the ministry of education in the US referred to the reality of computers and its usage in education and the result indicated that each high school has more than 20 computers and the study confirmed that 50% of the students time is dedicated to gain knowledge about computers and learning programming, and 13 %

of the students time is dedicated for training and practicing trade and industry, the study confirmed that using computers in some curricula participated in developing the academic background of the students.

2. Sterling and Gray study: a study about the effect of computers in the students trends and the extent of their response to statistics survey, the researchers found three statistical surveys differences in the education apprehension weighing the first group that used computers against the second group that used the classic method.

3. The Iraqi experiment in teaching computers: teaching computers in Iraq started at a late time, the first curricula for computers was introduced in 2007 and wasn't up to the required level for several reasons such as the un sufficient care by the government and not rehabilitating the computers labs, and not training the teaching staff to use computers. **Second**: realistic study conducted by the researchers about the problems of teaching computers in Najaf:

The first thing the researchers started was conducting a census about the total no. of schools in Najaf , the total no. of schools were (1040) schools according to the latest census in 2018 and this no. is divided into 737 primary school and 303 high schools.

And that computers subject is being taught in secondary and high schools and the no. of schools included in teaching computers are 158 schools , it is about half the no. high schools.

1. The study sample:

The study sample consisted on 15 schools that teach computers in Najaf and 100 students of their students and also the researchers took another sample from the students that don't teach computers 100 students.

The researchers reviewed the method of teaching computers, and that the schools that the samples were taken from were categorized as follows:

government schools, 7 for boys and 8 for girls and two private schools, the table 2 shows the type of schools and no. of labs it contains and no. of computers ready for work and no. of broken computers.

Table (2) shows the quality of the schools, the number of laboratories in schools, the number of computers that are work, and the numbers of computers that are don't work:

number	Type of school	School Ownership	Gender of students	Number of laboratories	Number of computers	Usable	Proportion of validity
1	preparative	Governmental	Male	1	20	11	%55
2	Medium	Governmental	Male	1	21	12	%57
3	Medium	Governmental	Female	1	17	5	%29
4	preparative	Governmental	Female	1	19	9	%47
5	Medium	Governmental	Male	1	23	10	%43
6	preparative	Governmental	Male	1	21	18	%85
7	preparative	Governmental	Female	1	20	6	%30
8	Secondary	Governmental	Female	1	19	8	%42
9	Secondary	Governmental	Female	1	22	13	%59
10	Medium	Governmental	Male	1	17	8	%47
11	preparative	Governmental	Male	1	21	10	%47
12	preparative	Governmental	Female	1	18	10	%55
13	Medium	Governmental	Female	1	20	11	%55
14	Secondary	Private	Female	1	22	19	%86
15	Secondary	Private	Male	1	21	19	%90
Sum				15	301 Average=20	Average=11	Average=%55

From the table above, the researchers found out that the no. of computers in these schools are not suitable for the no. of students in each classroom.
Each classroom consists on 40 students or more and the rate of no. of computers is 20 computers, and the rate of working computers are 11, i.e. the percentage of working computers is 55%.

2. The Study tools:

- The researchers conducted a questionnaire for some of the computers teachers (20 teachers) in the province about teaching computers and the questions and answers are shown in table 3(A).

Table 3(A) questionnaire for 20 computer's teachers:

number	The question is:	answer	percentage
1	Does the computer use to help the developing methods of teaching?	Yes	%90
		NO	%10
2	Do you agree with the teaching of computer in the unfinished stages of secondary schools that are not teaching computer?	Yes	%90
		NO	%10
3	Do you agree with teaching of the computer as a basic subject in the ended stages like third medium and sixth preparatory?	Yes	%60
		NO	%40
4	Do you agree with start teaching computer from primary schools?	Yes	%80
		NO	%20
5	Do you think the use of computers increases or improves the skills of students?	Yes	%100
		NO	-----
6	Is the use of computers in teaching investing the time or it's a waste of time?	Yes	%80
		NO	%20
7	Is there any interest from the Ministry of Education in teaching the computer?	Yes	%30

Table 3(B): a questionnaire on the problems faced by computer teachers and their suggestions for solving them:

number	Question	Cause or problem
1	Are there problems you face as a teacher for computer?	There are many problems, including: 1- computers lectures are very few (one's lecture per week) 2- the computers in lab are old and most of them do not work and lack of maintenance. 3- computer curriculum is old and not update.
2	What do you suggest about the teaching of the computer to be successful?	There are several suggestions, most importantly: 1-build modern laboratories supplied with computers type (laptop) and maintenance periodically. 2-Increase computer lectures to be at least three lectures per week. 3- Updating of the computer's curriculum periodically. 4- Entering the computer's curriculum in schools that do not study computer.

From table 3(A+B) above the researchers found that there is a real desire for computer's teachers in the province of Najaf to teach computer curricula, more effectively and more developed and that most of them have good skills in using the computer if they have the appropriate conditions to prepare a generation of distinguished students in the use of computer.
The researchers conducted a questionnaire for a group of students in the schools that teach the computer

curricula and the number of them 100 students as in the table below

Table 4(A) a questionnaire for students that studying computer:

number	The question is	answer	percentage
1	Do you have personal computer?	Yes	%80
		NO	%20
2	If you have computer, do you use it daily ?	Yes	%30
		NO	%70
3	Do you use the Internet?	Yes	%100
		NO	-----
4	If you are use Internet, do you use it a daily?	Yes	%40
		NO	%60
5	Do you have a desire to develop your computer skills?	Yes	%100
		NO	------
6	Do you like computer lectures ?	Yes	%100
		NO	------
7	Do you have difficulty understanding computer curriculum?	Yes	%30
		NO	%70
8	Have you benefited from computer study in your daily life?	Yes	%100
		NO	------
9	Do you work well on a computer?	Yes	%80
		NO	%20

Table (4) B: a questionnaire for students of schools that are not study computer curricula, The number of students is 100 students:

number	The questions are:	answer	percentage
1	Do you wish to study computer's curriculum in the curriculums that you study?	Yes	%85
		NO	%15
2	Do you have an idea about computer study?	Yes	%25
		NO	%75
3	Are there any problems you faced because you did not study the computer?	Yes	%65
		NO	%35
4	Do you think the study of computer curriculum will develop your skills?	Yes	%90
		NO	%10
5	In your opinion, do you need a computer study in the preparatory stage?	Yes	%95
		NO	%5
6	Do you have a desire go to schools that teach curriculum's computer?	Yes	%80
		NO	%20
7	Do you can work with computer?	Yes	%12
		NO	%88

From the table 4 (A+B) The researchers found that students who study computer in their curricula interact with the computer lesson. It is a lesson that differs from the other traditional lessons because it is one of the modern sciences because it develops their intellectual and creative skills and makes them cope with the tremendous development witnessed by the era of technology and informatics. At the required level, because of several reasons mentioned earlier.

As for the students who were interviewed by the researchers in Table 4 (B), they found that 85% of the students had a genuine desire to study the computer for a number of reasons: They want to learn to use

Computer, because they are in the stage of study Introduction and most of them do not know how to work on the computer so far, and as they will study the computer in the next phase (undergraduate) and they do not have the basics of this article and they will need the use of computer and the Internet continuously.

II. THE CONCLUSIONS:

Through this research and study , the researchers found that there are several problems that Impede the development of teaching computers and the most prominent are:

1. The studying labs: most of the labs in the schools that teaches computers are old and scares and most of them don't work, they need maintenance continuously.
2. Computers curricula: these curricula that exists in the high schools are old and depends on un updated software, and not in line with the great development in the IT era.
3. The computers lectures; computers subject was not given the importance in the required level regarding the no. of lectures , because computers subject has one lecture per week compared to other subjects that have several lectures every week.
4. The no. of students: the no. of students are increasing , where the no. of students could reach 50 in the classroom while the no. of computers in the lab are less than 20.
5. Training courses: the lack of training courses for computers teachers in order to be in touch with the development and fast changes in computers.

III. THE RECOMMENDATIONS:

Through the study of the problems facing teaching computers in Najaf province specially and Iraq in general, the researchers recommend a group of recommendations:

A: current recommendations:

1. The researchers recommend the necessity of rehabilitating and maintaining the computers labs in high schools that teaches computers, and it is done by replacing the broken computers or maintaining them.
2. the necessity to update the computers curricula because the current curricula is old and was not updated for years and the computers are in fast development, that is why there is an urgent need to update the curricula to be in line with the development.
3. the necessity to introduce computers to the non-final grades in high schools that doesn't include computers in its curricula.
4. the searchers recommend including computers as an essential subject like the other subjects by increasing its lectures so that the computers teachers can teach effectively.
5. the necessity to rehabilitate and train the teaching staff by conferences or seminars or specialized forums dedicated for modern sophisticated topics in the computers field and not just traditional forums.

B: future recommendations:

1. Build modern sophisticated labs that consists on modern computers in the schools that doesn't have labs and also building labs in the newly build schools,
2. Introducing computers from the primary school in order to teach the students how to use the computers then introducing it in the final grades in the sixth and ninth and twelfth grade.
3. The necessity to establish a website for each school and invest in the electronic letters between the schools and the education directorates and between the students and their teachers and it enables the students' parents to follow up their sons through this website.

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