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The Role of Kindergarten Teachers in Using the Computer in the Educational Process (Field Study on Schools in the Capital, Amman)

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Abstract
This study sought to know the role of kindergarten teachers in using the computer in the educational process, where the study community of all kindergarten schools are teachers in the capital Amman, and a questionnaire consisting of (10) items was relied upon and a random sample of 75 teachers was chosen in the schools of the capital, Amman. Data were extracted, results were monitored, tabulated, and entered into the computer, and statistical analyzes were performed using the (Statistical Package for Social Sciences) (SPSS). The T-test was used to test the hypothesis of the study. And to verify the stability of the distributed questionnaires, the internal consistency factor (Cronbach's alpha) was calculated, reaching (0.81), which is a value that can be considered acceptable for the purposes of the study. The study resulted in the following:
There is a statistically significant relationship at the level of significance 05.0 between kindergarten teachers and the use of the computer in the educational process due to personal factors (age, educational qualification, years of experience).
The most important recommendations reached by the study:
Holding training courses for teachers on the use of computers in the educational process, and educational institutions should make the computer subject a basic material for all disciplines to enable the teacher and the student to use it with high efficiency in the field of teaching and education and at all educational levels and to find educational computer programs to serve the educational process.
Keywords: kindergarten teachers, the computer.
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1.Introduction

The kindergarten stage is considered an important and sensitive stage in a person's life because the nucleus of the personality of the child begins with the formation, the intelligence takes to appear, and the formation of his tendencies towards the affinity to which he belongs and his perceptions of its etiquette in behavior, feeling and work (Khalifa, 2013) The advancement in technology in various fields makes the computer one of the necessities of life if it is correct to speak. Its use is not limited to one aspect in itself, as it has been used in various health, educational, agricultural, military, recreational, and other fields, as most Contemporary educational trends call for many trends, including the increasing interest in integrating computer-based educational methods in education and the use of advanced interactive technologies such as multimedia and virtual reality (Abdul Hamid, 2002).

Education had an abundant and large share of development and progress, so interaction was great and in continuous improvement and development. The computer is a product of contemporary scientific and technical progress, and at the same time it is one of the pillars that drive this progress. This made it in recent times the focus of attention of educators and those interested in the educational process and the educational (Bataineh, 2006). This research came to identify the role of kindergarten teachers in the use of computers in education, as the research consists of four chapters, the first of which includes the methodology of the research, the second chapter on the theoretical side, the third chapter includes the practical side and the fourth includes the results and recommendations.

1.2The problem of the Study

The problem of the study lies in the following main question:
What is the role of kindergarten teachers in using the computer in the educational process?

1.3The importance of the study

The importance of the study is followed by the importance of the computer as it is a modern technology in educational pedagogy as it contributes to solving many educational problems, and the importance of the study can be divided into:

First: The theoretical importance
1. This study forms in the diagram of Educational Preparation, Experiential Education, Academic Schedule, and Academic Schedule.
2. The importance of the current study also stems from the fact that it deals with a sensitive age stage, which is the kindergarten stage, in which the child has a high capacity to learn what is new.
Second: the practical importance
1. This study will open educational and educational training in educational institutions.
2. This study constitutes a reference and a frame of knowledge in this field for many educational institutions.

1.4 The objectives of the study
1- Understanding the concept of kindergarten teachers in the use of computers in the educational process.
2- Recognizing the advantages of using computers in the educational process.
3- Identify the negative aspects of using computers in the educational process.
4- Identify the obstacles to using the computer in the educational process.

1.5The hypothesis of the study:
There is a statistically significant relationship at the level of significance 05.0 between kindergarten teachers and the use of computers in the educational process due to personal factors (age, educational qualification, and years of experience).

1.6 Study Approach
The researcher adopted two methods in preparing this study:
- **Descriptive Approach**
  By collecting data on the subject of study in books, master's theses, and other references related to this problem.
- **Analytical method**
  The researcher designed a questionnaire form, which is considered a data collection tool. The questionnaire contains a set of questions that express the hypothesis of the study. The researcher distributed the questionnaire to the teachers.

1.7Study population
The study population consisted of all kindergarten teachers in public schools in the capital, Amman.

1.8The study sample
A random sample of 75 female teachers was selected in the schools of the capital, Amman (Nayfa Secondary School for Girls, Bab El-Wad Secondary School for Girls, AlQadisiyah Secondary School for Girls).

1.9The limits of the study
Temporal boundaries: 2020.
Spatial boundaries: the capital, Amman.

1.10Terminology of study
Kindergarten teachers: They are responsible for raising a group of children and raising them and taking their hand towards growth by providing them with the experiences and skills that are commensurate with their different characteristics at this age (Badr, 2009).
Computer: It is one of the electronic devices that exist of different types and sizes, and that has the ability to store and process data or even retrieve it, as it combines what is known as software to form together the computer (Al-Batayneh, 2006).

2. Literature review
2.1The use of computers in education (Bakkar, 2011):
The computer is device that has become indispensable, especially in the era of the information revolution. Education had an abundant and great share in development and progress, so interaction was great and in continuous improvement and development. The computer is a product of contemporary scientific and technical progress, and at the same time it is one of the pillars that drive this progress. Which made it in recent times the focus of attention of teachers and those interested in the learning and educational process.

2.2The goals of using computers in education(Abbawi, 2019):
1. Eradicating the learner's computer literacy and making him computer literate.

2. Training the learner to use the computer to solve the problems he faces in his life.
3. Providing advanced skills for the distinguished learner in the field of computer.
4. Making the learner master the basic requirements of computer application programs.

2.3The benefits of using computers in education can be summarized in several points, most notably(Abbawi, 2019):

1. Developing students 'skills to achieve educational goals.
2. Implementing many difficult experiments through simulation programs.
3. Approximation of abstract theoretical concepts.
4. Educational games have proven very effective in helping the disabled, mentally and physically, and in adapting students' abilities.
5. Developing students' mental skills through their ability to create intellectual environments that stimulate the student to explore topics that are not included in the academic curricula.
6. The ability to deliver or transfer information from the main information center to other places.
7. The learner can use the computer at the appropriate time and place.
8. Repeat the presentation of information over and over again.
9. Solve the teacher's problems that he faces in the classroom (increasing the number of students - less time allocated).
10. Presenting topics with visual concepts (maps - animal species - rocks ……) in the third dimension.
11. Providing an interactive learning environment by controlling and identifying the results of the inputs and overcoming individual differences.
12. Raise the level of students and their achievement and increase the level of the learner's understanding of the lesson through many exercises.
13. It works to provide the learner with the necessary skills to achieve educational goals.
14. Interviewing individual differences between students.

2.4Advantages of using a computer in the educational process (Clinics, 2004):

1. The ability to process information and data, and display images in an interesting way.
2. Providing an educational environment in overcoming individual differences: the computer in which the learner learns according to his abilities, speed and psychological state, as it is the solution to the issue of individual differences.
3. Developing students' skills to achieve educational goals.
4. Implementing many difficult experiments through simulation programs.
5. Approximation of abstract theoretical concepts.
6. Exercise and practice programs have proven effective in helping students memorize the meanings of words.
7. Educational games have proven to be very effective in helping the disabled, both mentally and mentally.
8. The computer provides students with immediate correction at every stage of the work.
9. The computer allows the student to catch up with the program without major difficulties and without errors.
10. Computer-assisted education distinguishes it by the adaptive nature of students' abilities.
11. Developing students' mental skills.
12. Its ability to create an intellectual environment that motivates the student to explore topics that are not included in the academic curricula.
13. The ability to deliver or transfer information from the main information center to other places.
14. The learner can use the computer at the appropriate time and place.
15. Computer is the ability to store information and learners 'answers and reactions. 16- Repeatedly providing information over and over.
16. Solving the teacher's problems that he faces in the classroom (increasing the number of students - less time allocated).
17. Raise the level of students and their achievement through exercises and the presence of feedback.
18. Encouraging students to work for a long time without getting bored.

2.5The negatives of using a computer in the educational process (Abbawi, 2019):

1- Using a computer in the educational process may lead to a decline in some individual skills, such as the skill of writing, as it depends on ready-made information in front of it.
2- The educational process using the computer is still an expensive process, and the costs of education must be taken into account by weighing this with the benefit that we can derive from the computer.
3- The lack of availability of educational programs, in addition to the lack of suitable programs for the

curricula.

4- Educational programs that are designed to be used with one type of computer device cannot be used with other computer devices.
5- The process of designing educational programs is not an easy process, for example a half-hour educational lesson that requires more than five hours of work. 6- Poor communication between teacher and student.

2.6Obstacles to using the computer in the educational process (Bakkar, 2011):

Indicates that the use of computers in developing learning for the Arab environment and following up on its scientific developments is one of the difficulties facing our educational system, and it is part of a larger problem represented in the transfer of technology, and he listed a number of problems that require confronting and developing solutions, including:

- Computerized Arabization of education systems.
- Adaptation of educational programs to operate in the Arabic language.
- Designing Arabic programming languages.
- Update curricula and offer courses in computer science.

(Arian, 2011) mentioned some of the obstacles that stand in the way of using computers in education, such as:

- Weak computer training programs in educational institutions.
- The need for curricula to be developed to be compatible with the role of computers in teaching it.
- The dominance of the usual teaching methods in educational situations and the exclusion of the computer's role in updating them.
- The lack of educational computer programs in all disciplines and subjects.

2.7Previous studies

The following are the most prominent of these studies:

Amin's study (1995) referred to the impact of hypermedia on academic achievement and the trends towards the use of computers in education for students of the Faculty of Education at Minia University. The study was conducted on 30 male and female students from the third division of the college, representing the different divisions and specializations, and they were divided into two groups equally, one of them the experimental group and the other the control group. The experimental group was studied using hypermedia and the other in the traditional way The study found that there were statistically significant differences between the two groups regarding students 'scores in the scale of attitudes toward computer use in education in favor of the experimental group. The study also found that there were statistically significant differences in the academic achievement test between the two groups in favor of the experimental group.

Malak (1995) conducted a study on the effect of using the computer-based teaching method on the achievement of first-grade secondary students in chemistry and their attitudes towards it and towards the computer. The study was conducted on a sample of (49) male and female students. Sheikhs for boys and girls in Jordan, and they were distributed into two groups, one experimental and comprising 24 male and female students and the other 25 male and female students as a control group so that students study separately from girls in both the experimental and control groups. The researcher found that there were no statistically significant differences in the experimental and control groups in students 'achievement of chemistry, but there was a positive trend in students' attitudes towards computers.

Dowidi (1996) referred in his study on uncovering the effect of using computers and transparent chips on first-grade students 'achievement in science in Madinah. The study sample consisted of 71 students distributed into three groups: one of them was a control group and the other two groups were experimental studies using the computer, while the second group studied using transparent slides, and the control group studied using the traditional method. The researcher found that the three groups had noticeable progress in the post-test balanced with the pre-test, and the rate of progress of the group that studied using the computer was clear to a high degree, balanced by the control and experimental groups. The researcher emphasizes the effectiveness of teaching science subject matter using computers.

Al-Jamhour (1999) conducted a study on the effectiveness of using the computer and its various programs in teaching English to first secondary grade students, who numbered 64 students, distributed over two semesters: one of them represented the experimental group where it was taught using the computer, and the control group was studied in the traditional way. The aim of the study was to determine the effectiveness of computers in teaching English between the two methods. After performing the post-test for both groups to measure the extent of their educational attainment, the researcher concluded that there are statistically significant differences at the level of (0.05) in the averages of student achievement between the experimental group and the control group in favor of the experimental group at the level of memory and the level of understanding of Bloom's classification,

while The study found that there were no statistically significant differences between the two groups at the level of application.

Commenting on previous studies

By reviewing previous studies, it appears that most experimental studies confirm the effectiveness of using computers as an aid in the educational process, and that it has a positive role in improving the general trend towards the use of computers in education. It also has positive results to some extent in cognitive achievement, recall and application, as it confirms somewhat the presence of statistically significant differences in favor of the experimental group in cognitive achievement, recall and application. The current study is nothing but an attempt to support previous studies in tracking the experimental approach in studying the variables in the Jordanian society, and perhaps this study adds scientific results about the research literature in the field of computer use, and contributes to demonstrating the importance of computers in the educational process, and thus the decision-makers find their results What supports their decisions to introduce computers into the educational process at all educational levels.

3. Statistical Analysis

Data were extracted, results were monitored, tabulated, and entered into the computer, and statistical analyzes were performed using the (Statistical Package for Social Sciences) (SPSS). The T-test was used to test the hypothesis of the study. And to verify the stability of the distributed questionnaires, the internal consistency factor (Cronbach's alpha) was calculated, reaching (0.81), which is a value that can be considered acceptable for the purposes of the study. (75) questionnaires were distributed to kindergarten teachers, and (60) valid questionnaires were accepted for the purpose of statistical analysis.

3.1 Characteristics of the study sample:

Table (1) Age:

	Repeat	Rate
Less than 25 years	18	45%
25-35 years	16	40%
36 - 45 years	6	15%
Over 45 years old	-	-
Total	40	100%

We notice that 45% of the sample is under the age of 25, 40% of them are between 25-35 years old, and the rest are between 36-45 years old.

Table (2) Academic Qualification:

	Repeat	Rate
diploma	-	-
Bachelor	32	80%
M.A.	8	20%
PhD l	-	-
Total	40	100%

We notice that 80% of the sample holds a bachelor's degree, and 20% of them are master's holders.

Table (3) Work Experience:

	Repeat	Rate
Less than 5 years old	18	27.5%
5 - 10 years	16	60%
11 - 15 years old	6	12.5%
Over 15 years old	-	-
Total	40	100%

We notice that 27.5% of the sample have less than 5 years of experience, and 60% of the sample have an experience of (5-10) years, and 12.5% of the sample have an experience of (11-15) years.

3.2 Descriptive statistics for the sample answers:

Assign each paragraph a specific mark so that the employee gets 5 marks if he answers (strongly agree), 4 marks if he answers (agree), 3 marks if he answers (neutral), two marks if he answers (disagrees), and one mark if he answers (strongly disagrees), After collecting these marks and dividing them by their number (5), then we have the standard mean, which is (3), so if the average of the answers is higher than (3), the teachers 'attitudes towards the questions are positive.

It is clear to us from Table No. (4) For analyzing the expressions of the first hypothesis that there is a statistically significant relationship at the level of morale 05.0 between kindergarten teachers and the use of computers in the educational process. It was found that the teachers 'attitudes were positive towards these

statements, which indicates that Teachers believe that the use of computers in the educational process is very important. Where the phrase No. 1 and phrase 9 achieved the highest score with an arithmetic mean of 4.63, and the phrases No. 2, 3,4,7,8 with a medium degree, and the lowest score was the phrases No. 5,6,10 and this result is considered positive.

Table (4) the arithmetic mean of the first hypothesis statements related to the role of kindergarten teachers in using the computer in the educational process.

No	Texts	Strongly refuse	Not agree	neutral	agree	strongly agree	SMA	standard deviation
1	The computer contributes to the creativity processes at work for kindergarten teachers.	34	20	6	0	0	4.46	.675
2	The computer helps to do my work related duties regularly.	16	44	0	0	0	4.26	.445
3	Feeling the desire to employ computers in the educational process.	32	16	12	0	0	4.33	.795
4	There are enough computers for children.	30	20	10	0	0	4.33	.751
5	Teachers contribute to the development of the educational process through the computer	60	38	22	0	0	3.63	.485
6	Computers provide opportunities to enhance effective communication and knowledge sharing between the teacher and the children	18	20	22	0	0	3.93	.820
7	Educational institutions work to develop the educational process through computer-based training programs	32	18	10	0	0	4.36	.758
8	Provides educational software that meets the requirements of the educational educational process	26	24	10	0	0	4.26	.733
9	Quality educational preparation and scientific qualification for computer teachers	38	22	0	0	0	4.63	.485
10	The large number of training courses that contribute to increasing computer skills.	0	24	36	0	0	3.40	.494

3.3testing hypothesis of the study:

There is a statistically significant relationship at the level of significance 05.0 between kindergarten teachers and the use of computers in the educational process due to personal factors (age, educational qualification, years of experience).

Table No. (5) test results

ANOVA

Quality

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	24.118	8	3.015	158.908	.000
Within Groups	.968	51	.019		
Total	25.086	59			

Table No. (5) shows us the results of testing the first hypothesis, where the results indicate that the calculated value of (q) amounted to 289.283, which is greater than the tabular value of (q) of 4.00 at a degree of confidence (0.95%) and significance (0.05 α) according to these Result We accept the first hypothesis.

4. Conclusion

The results of the study showed that the attitudes of the teachers were positive, which indicates that the teachers believe that the use of computers in the educational process is very important. The study accepted the hypothesis that: There is a statistically significant relationship at a level of significance 05.0 between kindergarten teachers and the use of computers in the educational process due to personal factors (age, academic qualification, years of

experience), which indicates that Teachers believe that the use of computers in the educational process is very important. Where the phrase No. 1 and phrase 9 achieved the highest score with an arithmetic mean of 4.63, and the phrases No. 2, 3,4,7,8 with a medium degree, and the lowest score was the phrases No. 5,6,10 and this result is considered positive**.** The study recommended conducting training courses for teachers in all disciplines on the use of computers in teaching educational materials, provided that these training courses are available throughout the academic year. Educational institutions must make computer a basic subject for all disciplines to enable the teacher and the student to use it efficiently in the field of teaching and education and at all educational levels. Creating continuous cooperation between educational institutions and private institutions to produce model educational computer programs that serve all scientific and literary disciplines and take into account the technical, educational and scientific aspects when preparing them.

References

1- Enas, K.(2013). Kindergarten (The Comprehensive Book), Dar Al-Manhal for Publishing and Distribution, Amman-Jordan.
2- Badr, M.(2009). Introduction to Kindergarten, 1st floor, Al Masirah House for Publishing and Distribution, Amman.
3- Clinics, Y. (2004). Educational computer and its educational applications. Amman: House of the March for Publishing and Distribution.
4- Bataineh, N.(2006). The use of educational computers in kindergartens, Irbid Modern Book World, Jordan.
5- Abbawi, M.(2016).The School of Technology Administration: Programs, Rules and Regulations, 1st Edition, Dar Khaled for Publishing and Distribution.
6- Bakkar, K.(2011). Pages on Education and Character Development, Dar Al Kitab for publishing and distribution.
7- Baglan, A. (2011). Thinking using computers in teaching mathematics, Debono for printing for publication and distribution.
8- Amin, M.(1995), The effect of using hypermedia on academic achievement and attitudes among students of the College of Education, unpublished PhD thesis, Egypt, College of Education, Minia University.
9- Duwaidi, M.(1996).The effect of using computers and transparent slides on the achievement of first-grade secondary students in the Madinah Region of the courses and groups unit in the periodic table, Riyadh, College of Education, King Saud University.
10- Malak, A. (1995). The effect of using the computer-based education method on the achievement of first-grade secondary school students in the field of chemistry and their attitudes towards computers, an unpublished master's thesis, Jordan, Yarmouk University.
11- Al-Jamhour, A.(1999).The Effectiveness of Computers in Teaching English to First-Year Secondary Students (An Experimental Study), Research presented to a Symposium on Education and Information Technology from 3 to 5/1/1420 AH, Riyadh, College of Education, Department of Media Education Technology, King Saud University.