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The Impact of Using Computer Games and Educational Programs on the Achievement and Growth of Creative Thinking among First-Grade Students in Arabic Language Course in Al-Karak

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Abstract: *The study aimed to reveal the effect of using computer games and educational programs on the achievement and growth of creative thinking among first-grade students in the Arabic language course. The empirical approach was used; the study sample consisted of 59 students who were randomly assigned to three groups. To measure the effect of using computer games and educational programs on achievement, an achievement test was prepared in the Arabic language course by the researcher, and the Torrance Test of Creative Thinking was applied to determine the impact of using computer games and educational programs on the elements of creative thinking. The results did not show that there were statistically significant differences at 0.05 □ level in the achievement of the three groups, while the results resulted in the emergence of statistically significant differences at 0.05 □ level in the development of each creative thinking ability separately (fluency, flexibility, originality, and details), as well as in the development of The ability of creative thinking as a whole in favor of the first experimental group, which used educational computer games. In light of the results, the researcher makes a set of recommendations, including expanding the adoption of computer software and games for learning and teaching.*

Keywords: *computer games; educational programs; achievement; creative thinking; first-grade students; arabic language.*

I. Introduction

The use of the computer has witnessed a qualitative development in the service of the educational process. One of the most important challenges facing the educational systems in the world is to keep up with this development by using the computer in the educational process, whether through the use of the computer-assisted learning model or through the computer-managed learning model. This has led to the increasing proliferation of educational computer programs in the recent period, which has led to the competition of companies specialized in the manufacture and distribution of educational software.

The computer is used as a teaching assistant with various types of instruction to serve the process of teaching and learning according to the nature of its software. It serves various educational purposes, such as training, simulation, and investigation, and thus provides new types of experience for various mental processes (Al-Khataybeh, 2006). The most important of these are the following, as determined by AL-Khataybeh& AL-Awasa (2016): training method, practice, individual special education, problem-solving, simulation, educational games, dialog, and survey method.

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Thus, interest in different types of thinking has increased in recent years, and creativity currently receives great attention from planners and experts to develop and benefit from it. Developed countries seek to develop children's creative capacities in all possible ways. This is confirmed by Peterson (1993), that there are two types of thinking aimed at education for the young, namely creative and critical thinking, on the basis that good thinking is a set of creative and critical thinking skills that are effectively developed which implies the need to pay attention to teaching and learning methods that deal with developing these skills. Bani Amer & Al-Khataybeh (2022) stressed the importance of caring for creative thinking because it helps provide individuals with many new entry points for practiced experience. Thus, the burden of developing society and its progress falls on the creative people in our world today to overcome many of the difficult problems that stand in the way of its development. Therefore, trying to find scientific ways to develop creativity in children is a duty of society.

Scholars of thinking, creativity, mental processes, and researchers in the field of creativity and its development agree on the need for multiple methods to provide expertise for the development of creativity (Al-Khataybeh, 2022). In this regard, many specialists agree on the importance of stimulating, developing, and training students' creativity in many ways, numbering more than 30 in the United States and in Japan more than 100 of them - among them American methods - a reasonable interest in preparing innovative ways capable of tackling the many complex and varied problems of dealing with life.

To play a major role in developing the higher functions of mental activity and stimulating creativity, Alter (1993) explain that they play a major role in the growth of cognitive mental activity and are important in the growth of higher functions - such as cognition, thinking, memory, imagination, reconnaissance, and creativity in children, starting from the simplest to the most complex functions , thus a child's mind opens up when he or she plays and grows with a creative quality through his or her interaction with games. Taylor (1999) argues that the imagination shown by children in computer games can have great value in being creative.

With the fact that computers have become one of the most important pillars and pillars on which the educational system depends as an educational aid, and with the rapid development and spread of computer education programs in recent years, the idea of this study has been born. The aim of this study is to determine the impact of the use of educational computer programs in primary reading and writing education on achievement and the development of creative thinking in pupils.

II. Review of Literature

2.1 Statistical Study Hypotheses

1. There are no statistically significant differences at 0.05 in achievement between the average grade levels of students in each of the first experimental group (taught using educational computer games), the second experimental group (taught using computer games as well as educational computer software) and the control group (taught in the usual manner).
2. There are no statistically significant differences at 0.05 in the growth of the capacity of the students to be creative thinkers between the student grades of the first pilot group (taught using educational computer games), the second experimental group (taught using computer games as well as educational computer software) and the control group (taught in the usual manner).

3. There are no statistically significant differences at 0.05 □ in the growth of flexibility in creative thinking between the average grade levels of pupils in each of the first experimental groups (taught using educational computer games), second experimental groups (taught using computer games as well as an educational computer program) and control groups (taught in the usual manner).
4. There are no statistically significant differences at 0.05 in the growth of the capacity of originality in creative thinking between the student grades of the first experimental group (taught using educational computer games), the second experimental group (taught using computer games as well as educational computer software) and the control group (taught in the usual manner).
5. There are no statistically significant differences at 0.05 on the growth in the ability of detail to think creatively between the student average grades of the first pilot group (taught using educational computer games), the second experimental group (taught using computer games as well as educational computer software) and the control group (taught in the usual manner).
6. There are no statistically significant differences of the 0.05 for the growth of creative thinking between the average grade of pupils in each of the first experimental group (taught using educational computer games), the second experimental group (taught using computer games as well as an educational computer program) and the control group (taught in the usual manner).

2.2 The Significance of Study

The proliferation of educational computer programs in the recent era as a teaching aid has several patterns, including emulation, and educational games, which may contribute to the development of achievement as well as the development of higher functions of mental activity. The current study is important in trying to determine the impact of one of these programs on both the achievement and growth of creative thinking (fluency, flexibility, originality, details) for first-grade students in Arabic language course.

2.3 Study Terms

Computer games: The idea behind computer games is to teach a student something and stimulate his or her thinking while training to build strategies and plans. This study refers to the educational games of the program which have an impact on both achievements and stimulate the thinking of first graders by rearranging and painting images and linking color and formal relationships.

Achievement: This study refers to the difference between the grades of the students in the sample of study in both the pre-and post-graduate exams for reading and writing and hymns.

Creative thinking: Guilford's 1986 definition of Creative Thinking was set out by Jarwan (2002) as a ready-to-use quality, including fluency in thought, flexibility, and originality, and elaborated or elaborated. Procedurally, the researcher defines it as a pattern of thought or mental activity that has several components, including fluency, flexibility, originality, and detail, as measured by the degree to which a student receives a Torrance Innovative Thinking Test modified for the Jordanian environment, used in the current study.

Fluency: This refers to the ability to produce and call as many appropriate ideas as possible in a fixed time unit or interesting position in the Torrance Innovative Thinking test.

Flexibility: It is the student's ability to change the state of mind by changing attitude, that is, his ability to break free from stereotypes and produce diverse and stereotypical responses in the Torrance Innovative Thinking Test.

Authenticity: The ability of a student to generate new ideas, i.e., less repetition in the statistical sense in the light of the ideas that stand out in other pupils is related to the exciting situation in the Torrance Innovative Thinking Test.

Details: The pupil's ability to give details to a thought, or to give further additions to that idea in the Torrance Innovative Thinking Test.

III. Research Method

To achieve study objectives and answer its questions, the researcher followed some procedures and developed the instruments necessary for the study:

First: Choosing a Computer Program:

1. The computer program that the researcher used is one of the open source games - usually free -. The program is divided into two main parts: letter sets and educational games. The student chooses between entering the letter sets - according to the organization of the textbook - and choosing to enter the educational games, and the program is compatible with the curriculum of the first grade of primary school for the Arabic language by the Jordanian Ministry of Education.
2. To judge the suitability and reliability of the program's content for the first-grade Arabic language subject, the program was presented to eight specialized faculty members at Mutah University and Tafila Technical University, as well as to four educational supervisors in Karak. All of the arbitrators agreed on the appropriateness of the program's content for the application.
3. The researcher, in cooperation with the school administration, checked the validity of all computer lab equipment, as well as the availability of sound for the nature of the program's use.

Second: Set up the collection test:

The first grade depends on the continuous evaluation and on the teacher's follow-up and directness of each step with the students, and the student at this stage is not used to tests or solving exercises alone according to the regulations of the Jordanian Ministry of Education, so it was necessary when applying the pre and post-test to read the questions to the students and then give them a chance to answer.

The achievement test went through the following steps:

1. Preparing the achievement test on the set of letters to be tested on from the Arabic language book for the first grade. The initial test consisted of eight questions comprising 32 items.
2. The test was presented to five arbitrators from faculty members specialized in the field of curricula and teaching methods at the Faculty of Educational Sciences at Mutah University, in light of the suggestions of the specialized arbitrators, some proposed modifications were made to the test paragraphs, and the achievement test in its final form became composed of eight questions that include: 28 items.
3. The stability of the test was measured by applying it to a sample consisting of 30 students - outside the study sample - and the test stability coefficient was calculated using the split-

half method and the Guttman Split - half equation was applied. The stability ratio was 0.746, and this is an acceptable value and indicates that the test is of an acceptable degree of stability and applicable.

Third: Using the Torrance Test for Creative Thinking

The Torrance Test for Creative Thinking has been applied, where the test consists of three activities, each of which requires ten minutes so that the total time with reading the instructions takes 45 minutes of non-integral parts.

The researcher applied the test to the study sample according to the instructions of the application guide as follows:

- The researcher begins by preparing the study sample by giving a directive that stimulates their interest and motives.
- Test booklets are distributed and each student is asked to write the required data at the top of the page.
- The researcher reads each of the three activities and explains it to the research sample, and since the research sample is in the first grade, the course teacher and a cooperating teacher pass by the students to ensure the clarity of writing.

After the time for each activity, the researcher asks the students to move to the next activity. The sample of the study consisted of 59 students from the first grade at Al-Thaniya Elementary Mixed School, they were randomly distributed into three equal groups, and the experiment took 15 school days.

Fifth: Application of the experiment:

The course instructor applied the experiment to the three groups according to the agreed-upon criteria:

1. The first experimental group: The number of its members was 19 students, and it is the group that studied using educational computer games, where the course teacher teaches the unit in the usual way in the computer lab, then asks them to use the educational games included in the educational program.
2. The second experimental group: The number of its members was 20 students, and it is the group that studied using computer games with the educational computer program on the aforementioned set of letters so that the students start studying the subject of the letter according to the study plan and then move on to play the educational games included in the educational program.
3. The third experimental group: Consisted of 20 students and it is the group that studied in the usual way, where the teacher of the course teaches in the classroom according to the prevailing methods in schools, and does not include the use of educational computer software.

Sixth: Group Equality:

To ensure the equivalence of the three groups, a pre-application was made for both the achievement test and the modified Torrance test in the Jordanian environment, and the data of this application indicated the following:

1. Achievement:

   After a pre-application of the collectible test, calculation averages and standard deviations of the three groups' grades were calculated, and a one-way variation analysis was performed to compare the differences between the average scores of the study sample members in the tribal application shown in table (1) as follows:

Table 1. Analysis of the variance between the average scores of the three groups in the pre-application of the achievement

Value (F)	Variance	Sum of Squares	DF	Contrast Source
0.253	4.620	9.239	2	Between Groups
	18.285	1023.947	56	Experimental Error
		1033.186	**58**	**Total**

*Value (F) is not significant at the level 0.05 ≥

Table (1) shows that there are no statistically significant differences at the level of 0.05 ≥ between the students of the three groups in the pre-application of the achievement test, which shows the equivalence of the groups in the pre-application of the experiment.

2. Torrance Test of Inventive Thinking

To ensure that the groups are equal in creative abilities, the Torrance test was applied beforehand, the means and standard deviations of the scores of the three groups were calculated, and the One-Way-ANOVA analysis of variance was conducted to compare the differences between the mean scores of the sample members in the test, which is illustrated in Table (2) as follows:

Table 2. Analysis of the variance between the mean scores of the three groups in the pre-application of the Torrance test

Value (F)	Variance	Sum of Squares	DF	Contrast Source
0.049	**9.888**	**19.776**	**2**	**Between Groups**
	203.612	**11402.258**	**56**	**Experimental Error**
		11422.034	**58**	**Total**

*Value (F) is not significant at the level 0.05 ≥

Table (2) shows that there are no statistically significant differences at the level of 0.05 ≥ between the students of the three groups in the pre-application of Torrance Test of Creative Abilities, which shows the equivalence of the groups in the pre-application of the experiment.

IV. Discussion

Immediately after the completion of the experiment, the post-achievement test was applied, and the Torrance test was applied to the control group and the two experimental groups simultaneously. The results of the data analysis were as follows:

First: Verifying the validity of the first hypothesis:

To verify the validity of the first statistical hypothesis which states that "there are no statistically significant differences at the level of 0.05 ≥ in achievement between the mean scores of students in each of the first experimental group (which studied using educational computer games) and the second experimental group which studied using computer games automated in addition to an educational computer program and the control group which was taught in the usual way. The means and standard deviations of the scores of the members of the three groups were calculated, which are shown in Table (3)

Table 3. Means and standard deviations of the scores of the three groups in the post-application of the achievement test

Standard Deviation	Mean	No.	Groups
6.26	18.18	19	The 1st Experimental Group
5.25	20.55	20	The 2nd Experimental Group
5.51	**17.65**	**20**	**Control Group**

Table (4) shows that the average scores of the second experimental group reached 20.55 degrees in the achievement test, and it was the highest among the three groups, followed by the first experimental group with an average score of 18.18 degrees in the post achievement test, while the average scores of the control group reached 17.65 degrees, and this It indicates a growth in the achievement of the two experimental groups compared to the control group, and to test the significance of these differences between the scores of individuals, one-way analysis of variance was used and the q value was calculated, which is illustrated in Table (4) as follows:

Table 4. Analysis of the variance between the average scores of the members of the three groups in the post application

Value (F)	Variance	Sum of Squares	Degrees of Freedom	Contrast Source
1.444	46.560	93.121	2	Between Groups
	32.235	1805.184	56	Experimental Error
		1898.305	**58**	**Total**

Table (4) shows that the value of (F) = 1.444, which is not significant at the level of 0.05 ≥, meaning that there are no significant differences between the mean scores of the members of the three groups, although the arithmetic means of the second experimental group which was taught using computer games in addition to an educational computer program was the highest, and accordingly, we cannot reject the first statistical hypothesis, which states "there are no statistically significant differences at the level of 0.05 ≥ between the mean scores of students in each of the first experimental group which studied using educational computer games and the second experimental group which studied using educational games in addition to an educational computer program and the control group which was taught in the usual way.

This result contradicts the result of al-Bassiouni (1994) which showed the superiority of the experimental group in linguistic achievement and written expression over the control group, and the result of the current study also contradicts the study of Al-Jamhour (1999), which showed the superiority of the experimental group at the levels of remembering and understanding Bloom's classification. However, the current study agrees with the results of Ford & Cox (1995) which showed that there were no statistically significant differences between the two groups in the fluency in reading by repetition when comparing educational software and textbooks.

As for the use of educational computer games in achievement, it is noted that the result of the current study contradicts the study of Ahmed and Al-Morsi (1998) whose results showed an increase in the level of achievement of the experimental group. Reading in the achievement of scientific concepts for the science course for the first intermediate grade in the Kingdom of Saudi Arabia, and the result of the current study agrees with the result of the study Boqhous&Obaid (1997) which revealed that there were no statistically significant

differences between the experimental and control groups in the achievement of the second and third graders in the subject of magnets in science in Bahrain.

Second: Verifying the validity of the second hypothesis:

To verify the validity of the second hypothesis, which states that "there are no statistically significant differences at the 0.05 ≥ level on the development of fluency in creative thinking between the mean scores of students in each of the first experimental group which was taught using educational computer games and the second experimental group which She studied using computer games in addition to an educational computer program and the control group which taught in the usual way. One-Way-ANOVA and F-value were used to test the significance of differences between the mean scores of the students in the three groups in the post-application of fluency in creative thinking, which is illustrated in Table (5).

Table 5. Analysis of the variance between the mean scores of the members of the three groups in the post-application of the Torrance test

Value (F)	Variance	Sum of Squares	DF	Contrast Source	Capacity
	224.435	448.869	2	Between Groups	**Fluency**
*9.408	23.855	1335.876	56	Experimental Error	
		1784.745	**58**	**Total**	
	403.125	806.250	2	Between Groups	**Flexibility**
*9.141	44.103	2469.715	56	Experimental Error	
		3275.965	**58**	**Total**	
	793.102	1586.204	2	Between Groups	**Originality**
*11.838	66.996	3751.897	56	Experimental Error	
		5338.101	**58**	**Total**	
	515.794	1031.588	2	Between Groups	**Details**
*10.181	50.664	2837.158	56	Experimental Error	
		3868.746	**58**	**Total**	
	6562.561	13125.122	2	Between Groups	**Creative Thinking**
*16.523	397.188	22242.539	56	Experimental Error	
		35367.661	**58**	**Total**	

Table (5) shows that the value of (F) = 9.408 which is a function at the level 0.05 ≥, and therefore the second statistical hypothesis is rejected, which states that "there are no statistically significant differences at the level 0.05 ≥ on the growth of fluency in creative thinking between the average scores of Pupils in each of the first experimental group which taught using educational computer games, the second experimental group which taught using computer games in addition to an educational computer program, and the control group which taught in the usual way.

In order to find out which groups these differences belong to, the LSD method was used, and Table (6) shows a matrix of differences between the means for each of the three groups.

Table 6. The significance of the differences between the mean scores of the members of the three groups in the post-application of the modified Torrance test for fluency in creative thinking

Control Group	2nd Experimental Group	1st Experimental Group	Means	Groups
10.40	13.15	17.16		
*6.76	*4.01		17.16	1st Experimental Group
2.75			13.15	2nd Experimental Group
			10.40	Control Group

Table (6) shows that the difference is significant between first group and the second group and the control group in favor of the first group. The result reached by Backman (1995) where the experimental group excelled in the ability of fluency for creative thinking over the control group, as well as agrees with the study of Rajeh (1998) which showed that the group that studied using the usual kindergarten program in addition to free play has excelled in the ability of Fluency for creative thinking on the control group.

Third: Verifying the validity of the third hypothesis:

To verify the validity of the third hypothesis, which states that "there are no statistically significant differences at the 0.05 ≥ level on the development of flexibility in creative thinking ability between the mean scores of students in both the first experimental group which was taught using educational computer games and the second experimental group which studied using computer games in addition to an educational computer program and the control group (which studied in the usual way.

One-Way-ANOVA was used and the (F) value was calculated for the significance of the differences between the mean scores of the study sample members in the three groups by post-application in the ability of flexibility in creative thinking. It is clear from Table (5) that the value of (F) = 9.141 is a function at the level of 0.05 ≥, and accordingly it rejects the third statistical hypothesis, which states that "there are no statistically significant differences at the level 0.05 ≥ on the growth of flexibility in creative thinking ability between the average scores of students in each of the first experimental group which was studied using computer games and the second experimental group which studied using computer games in addition to an educational computer program and the control group which taught in the usual way.

To determine to which groups these differences belong, the least significant difference (LSD) method was used the matrix of differences between the means for each of the three groups, as shown in Table (7).

Table 7. The significance of the differences between the mean scores of the members of the three groups in the post-application of the modified Torrance test for the ability of flexibility in creative thinking

Control Group	2nd Experimental Group	1st Experimental Group	Means	Groups
19.00	**22.25**	**28.00**		
***9.00**	***5.75**		**28.00**	**1st Experimental Group**
3.25			**22.25**	**2nd Experimental Group**

			19.00	**Control Group**

Table (7) shows that the difference is significant between the first experimental group and each the second experimental group and the control group in favor of the first group. Rajeh (1998) showed statistical superiority in fluency in favor of the free-play group over the control group.

Fourth: Verifying the validity of the fourth hypothesis:

To verify the validity of the fourth hypothesis, which states that "there are no statistically significant differences at the 0.05 ≥ level on the growth of the ability of originality in creative thinking between the mean scores of students in both the first experimental group which was taught using educational computer games and the second experimental group which studied using computer games in addition to an educational computer program and the control group which taught in the usual way.

One-way analysis of variance and calculating the value of (F) were used to test the significance of differences in the ability of originality in creative thinking between the average scores of the study sample members in the three groups in the post-application, which is shown in Table (5), and since the value of (F) = 11.838 It is a function at the level 0.05 ≥, the fourth statistical hypothesis is rejected, which states that "there are no statistically significant differences at the level 0.05 ≥ on the growth of the ability of originality in creative thinking between the average scores of students in each of the first experimental group which was studied using computer games. The second experimental group which studied using computer games in addition to an educational computer program, and the control group which taught in the usual way.

In order to find out which groups these differences belong to, the LSD method was used, and the following table (8) shows a matrix of differences between the averages of the sample members in the ability of originality to creative thinking for the three groups.

Table 8. The significance of the differences between the mean scores of the members of the three groups in the post-application of the modified Torrance test for the ability of originality in creative thinking

Control Group	2nd Experimental Group	1st Experimental Group	Means	Groups
27.00	**23.55**	**35.95**		
***8.95**	***12.40**		**35.95**	**1st Experimental Group**
3.45			**23.55**	**2nd Experimental Group**
			27.00	**Control Group**

Table (8) shows that the difference is significant between the first experimental group and the second experimental group and the control group in favor of the first group. The degrees of originality ability in creative thinking was the highest among the degrees of creative thinking and also agree with the result reached by Rajeh (1998) where results showed statistically significant differences in favor of the two experimental groups in originality over the control group.

Fifth: Verifying the validity of the fifth hypothesis:

To verify the validity of the fifth hypothesis, which states that "there are no statistically significant differences at the 0.05 ≥ level in the growth of the detailed ability in creative thinking between the average scores of students in both the first experimental group which was taught using educational computer games and the second experimental group which studied using computer games in addition to an educational computer program and the control group which studied in the usual way.

One-Way-ANOVA and F-value calculation were used to test the significance of differences between the mean scores of the study sample members in the three groups in the post-application in the ability of details in creative thinking, which is illustrated in Table (5), where the value of (F) = 10.181, which is a function at the level of 0.05 ≥, and therefore the fifth statistical hypothesis cannot be accepted, which states that "there are no statistically significant differences at the level of 0.05 ≥ on the growth of the ability of details in creative thinking between the average scores of students in each of the first experimental group which studied using educational computer games, the second experimental group which studied using computer games in addition to an educational computer program and the control group which studied in the usual way.

To find out to which groups these differences belong, the LSD method was used, and the following table (9) shows a matrix of differences between the means for each of the three groups.

Table 9. The significance of the differences between the mean scores of the members of the three groups in the post application of the modified Torrance test for the ability of details in creative thinking

Control Group	2nd Experimental Group	1st Experimental Group	Means	Groups
17.50	22.50	27.79		
*10.29	*5.29		27.79	1st Experimental Group
*5.00			22.50	2nd Experimental Group
			17.50	Control Group

Table (9) shows that the difference is significant between the mean scores of the first experimental group and the second experimental group and the control group in favor of the first group.

Sixth: Validating the Sixth Hypothesis:

To verify the validity of the sixth hypothesis which states that "there are no statistically significant differences at the 0.05 ≥ level in creative thinking between the mean scores of students in each of the first experimental group which studied using educational computer games and the second experimental group (which studied using computer games.

One-Way-ANOVA and F-value were used to test the significance of differences between the mean scores of the study sample members in the three groups in the post-application of creative thinking abilities, which is illustrated in Table (5) where the results showed that the value of (F) = 16.523, which is a function at the level of ≥ 0.05, and accordingly the sixth statistical hypothesis is rejected, which states, "There are no statistically

significant differences at the level of 0.05 ≥ in creative thinking between the mean scores of students in each of the first experimental group which was studied using educational computer games and the second experimental group which was taught using computer games in addition to an educational computer program and the control group which was taught in the usual way.

In order to find out which groups these differences belong to, the LSD method was used, and the following table (10) shows a matrix of differences between the means for each of the three groups.

Table 10. The significance of the differences between the mean scores of the members of the three groups in the post-application of the modified Torrance test for total creative thinking abilities

Control Group	2nd Experimental Group	1st Experimental Group	Means	Groups
73.90	81.45	108.89		
*34.99	*27.44		108.89	1st Experimental Group
7.55			81.45	2nd Experimental Group
			73.90	Control Group

Table (10) shows that there is a significant difference between the mean scores of the first experimental group and each the second experimental group and the control group in favor of the first group in creative thinking abilities in general. It also agrees with the study of Khattab (1994) whose results showed the superiority of the experimental group in the abilities of creative thinking, and it also agrees with the findings of Backman (1995) showed that the experimental group that played four different types of computer games statistically excelled in the dimensions of creative thinking (originality, flexibility, fluency) on the control group, as well as with the study of Rajeh (1998) which showed that there were statistically significant differences in favor of the two experimental groups in the general ability to think creatively, and also consistent with the results of the study of Schunk (1998) which showed that computer games it improves the cognitive skills of children.

V. Conclusion

It is noted from the previous results, as well as the result of the current study, the impact of games and educational programs in developing and stimulating creative abilities, which may be due to the role played by the game and educational programs to attract the practitioner's attention and focus to it, and increase when games and educational programs experience students' desire and motivation to excel in it, and through our urgent need to adopt a modern method to stimulate and develop Creative abilities

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