

The effect of using cognitive trips on some learning outcomes in rhythmic gymnastics

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First: Research Introduction:

The last decade of the last century and the past years of the current century have witnessed many new and innovative ideas in the field of education, especially those related to the investment of the capabilities provided by information and communication technology, such as e-learning, mobile learning, online learning and other titles that highlight the extent of interest that modern technologies receive in supporting new ideas for the development of teaching methods.

Backpacker and explorer, and helps to achieve predetermined and carefully planned educational goals, and encourages collaborative work, and the exchange of opinions and ideas among students and that does not prevent individual work.
(16:234)

And cognitive journeys via the web are consistent as an educational strategy with the foundations and principles on which the structural approach is based in educational design, one of the characteristics of this entrance is that it is centered on the learner, and emphasizes the learner's building of knowledge himself and the rejection of negative reception of it and emphasis on the active participation of the learner in the learning process and linking his new knowledge with his previous experiences and knowledge, and emphasizing teamwork with the recognition of the learner's self, And make him aware of his role and individual responsibility, and that the learning tasks are realistic and meaningful, and thus the strategy of cognitive trips is one of the learning strategies in which the foundations of constructivist thought and principles are

available in terms of it aims to train the learner and encourage him to build knowledge and produce it himself instead of transferring it to him, and the implementation of students for the steps of the strategy enables him to discover knowledge and gain new experiences, These experiences are organized in the framework that already has it, to lead to the creation of new cognitive structures that help him give meaning to his experiences that he went through, and whenever the learner passes through new experiences, there is an amendment to the existing knowledge system. (17 : 130)

Second: Research Problem:

The emergence of the era of globalization and the electronic information society rapidly, as well as the tremendous development in the international information network and the increase in the services it provides, has made educational systems in the face of many huge challenges that require addressing them with a new educational thought and advanced strategies, so that future generations have the skills to deal with these technological changes. Therefore, this problem must be addressed through the use of teaching strategies that emphasize the positive participation of the learner in the educational situation and enable him to practice the processes of investigation, discovery and search for information, which makes the educational environment characterized by excitement and fun during the learning process. Modern and easy use of it, which will facilitate them to understand the conduct of the research process, and given the increasing volume of information on the Internet, it is not easy for them to conduct the research process without bifurcation in topics far from the focus of attention and research, which leads to the dispersion of students' effort in searching for the required information, and based on that came the need to develop specific educational models and directed methods such as cognitive journeys WebQuests and their transformation into a distinguished generation in the use of technology

The researcher finds that rhythmic gymnastics appears through videos and drawings, and thus it attracts them to sail, enjoy and eager to watch and apply after that, which leads to access to knowing the performance quickly.

And the knowledge trips through the web reflect the modern technological thought in contemporary teaching, which depends on the latest technologies of the age as a source of knowledge in various academic stages as well as multiple theoretical and applied fields, and that the information available in them is

characterized by modernity and seriousness and in different disciplines, in addition to that it is one of the new and important means in providing young women with many of the many skills and knowledge necessary for them through navigating the international network of information and teaching self-research and interactive learning is not restricted In time and place and to face the defects and use of the traditional method used (explanation - performance of the model) in teaching.

Third: Research Objective:

Identify the effect of using cognitive journeys on both

1. The level of cognitive achievement of the basic research sample.
2. The level of skill performance of modern dance among the basic research sample.

Research hypotheses:

1. There are statistically significant differences between the pre- and post-measurements of the experimental group in favor of the post-measurement in the cognitive achievement under research.
2. There are statistically significant differences between the pre- and post-measurements of the experimental group in favor of the post-measurement in the skill level of modern dance under research.
3. There are improvement rates between the pre- and post-measurements of the experimental group in favor of the post-measurement in cognitive achievement and the level of performance of rhythmic gymnastics under research.

Fifth: Search Terms:

• Cognitive journeys:

It is "an inquiry-oriented, learning environment in which learners interact with online learning resources to develop higher order thinking skills through collaborative work in small groups."(12:396)

• Cognitive attainment:

It is the primary set of traits that communicate and describe knowledge that take the form of multidimensional thinking-based skills in order to memorize, retrieve and process an individual's perceptions of information. (19 : 160)

Rhythmic gymnastics .

One of the unique sports for females that depends on the formation of their skills on some other sports activities such as artistic gymnastics and ballet,

it develops a sense of balance, rhythm and control of the body by a large amount compared to other types of sports, and it also requires the ability and possibility of the body to use its various parts at the appropriate angles and with the required force and speed and accurate control of the internal and external forces affecting it to reach accurate motor performance with economy of time and effort.

Search Procedures

First: Research Methodology.

The researcher **used the experimental** approach to suit the nature of this research in terms of experimental design, which depends on the measurement before and after two groups, one experimental using cognitive trips and the other control using the traditional method.

Second: Research Community.

The research community was deliberately selected from the second-year students of the Faculty of Physical Education in Sadat City - University of Sadat City, who are enrolled for the academic year 2018/2019, numbering (120) students.

Third: Sample research.

The research sample was selected in a deliberate way from the students of the second year girls at the Faculty of Physical Education in Sadat City - University of Sadat City and the sample size before the application of the educational program (100) students by 83% of the original community of the sample, and then divided randomly as follows:

A - The first group (control): and the number (50) students, which underwent the method of verbal explanation and the performance of the practical model and the traditional method of learning.

B - The second group (experimental): and the number (50) students who used the method of cognitive trips. Table (1) shows the numbers of the members of the research sample for the basic study and the members of the survey sample.

Table(1)
Description of a population and its research sample n=120

the percentage	The number is	the group	م
%41.6	50	control	1
%41.6	50	Experimental	2
%16.6	20	Exploratory studies	3
%100	120	Total	5

3. Homogeneity of the research sample:

The researcher found homogeneity for the research sample (basic, exploratory) numbering (120) students to ensure that it falls under the moderate curve in the following variables, as shown in Table (2):

Table (2)

Homogeneity of the members of the research sample (basic-exploratory) n = 120

torsion coefficient	, standard deviation,	median,	Arithmetic mean,	measuring unit	the exams	م
2.101	6.79	164	163.82	centimeter	height	1
0.279	7.24	61	61.77	kilo	the weight	2
10111-	0.44	21	20.74	the year	Age	3
0.582 -	7.82	88	86.85	Class	intelligence	4
0.448	3.34	19	18.95	Class	Cognitive	5

It is clear from Table (2) that the torsion coefficient of the variables "height - weight - age - intelligence coefficient - cognitive test" for the members of the research sample has been limited between (± 3), which indicates the homogeneity of the members of the research sample in these variables.

Table (3)

Homogeneity of the members of the research sample (basic - exploratory) in physical variables n = 120

torsion coefficient	, standard deviation,	median,	Arithmetic mean,	measuring unit	the exams	
0.407	20.04	60	62.31	kilometer	Leg muscle strength test (paldina meter)	.1
0.017	4.7	16	16.25	centimeter	Vertical jump stability test	.2
0.149	23.86	68	67	Class	Beurbi test to the maximum number of times "incline prone from standing"	.3
0.209	1.25	12.51	12.78	the second	Cookie run test (4×9) or cube race	.4
0.473-	2.85	14	13.88	centimeter	Standing torso flexion test	.5
1.347	2.95	3.09	4019	the second	Standing test on instep	.6

It is clear from Table (3) that the torsion coefficient for the tests of the selected physical variables of the members of the research sample has been limited between (± 3), which indicates the homogeneity of the members of the research sample in these variables.

Table (4)

**Homogeneity of the members of the research sample (basic - exploratory) in the variables
For selected rhythmic gymnastics skills "under research" n = 120**

torsion coefficient	, standard deviation,	median,	Arithmetic mean,	measuring unit	the exams	
0.942	0.63	3	3.09	degree	Walking	.1
1.029	0.67	3	3.22	degree	running	.2
0.962	0.56	3	3.20	degree	partridge	.3
0.410	0.62	3	3.32	degree	Flexibility from kneeling	.4
0.748	0.66	3	3.27	degree	Bass balance	.5
1.44	0.68	3	3.07	degree	Horizontal rotation	.6
0.546	0.68	3	3.26	degree	Front balance dart	.7
0.938	0.60	3	3.21	degree	front balance	.8
0.680	0.56	3	3.24	degree	horse dart	.9
0.555	0.54	3	3.28	degree	Bassey's rotation	10
0.196	0.62	3.50	3.52	degree	Twisting movements	11
0.597	0.58	3	3.18	degree	Balance movements from stability	12
1.09	0.58	3	3.11	degree	Balancing movements from the movement	13

It is clear from Table (4) that the torsion coefficient for tests of variables for rhythmic gymnastics skills selected for the members of the research sample has been limited between (± 3), which indicates the homogeneity of the members of the research sample in these variables.

4. Equivalence of the two research groups:

To achieve equivalence between the experimental and control research groups, the researcher found the significance of the differences between the two groups in the pre-measurement in some of the selected variables. This is shown in Table (5)

Table(5)

**The significance of the differences between the experimental and control research group
In some selected variables n1 = n2 = 50**

two means is a value	between	group The difference		Experimental group Control		measuring unit	Variants
		ع±	س-	ع±	س-		
0.549	0.91	4.60	163.63	6.47	164.54	centimeter	Height
0.367	0.13	9.21	61.96	5.64	62.79	kilogram	the weight
0.327	0.04	0.41	20.79	0.44	20.75	the year	Age
0.760	1.37	6.25	89	7.25	87.63	Class	Intelligence
0.351	0.34	2.75	18.79	3.60	19.13	Class	Cognitive

* Tabular value of "T" at significance level (0.05) = 2.02

It is clear from Table (5) that there are no statistically significant differences at the level of significance (0.05) between the experimental and control groups for the variables "height - weight - age - intelligence coefficient - cognitive test" for the members of the research sample, which indicates the equivalence of the two groups in those variables.

Table (6)
The significance of the differences between the experimental and control research groups In the physical variables "under research" n 1 = n 2 = 50

two means is a value	between	group The difference		Experimental group Control		lonliness measure ment	physical exams
		ع±	س-	ع±	س-		
0.136	0.63	17.94	62.71	16.01	62.08		Leg muscle strength test (paldina meter)
0.654	0.84	4.26	16.17	4.19	15.33	kg	Vertical jump stability test
0.078	0.58	25.31	63.42	24.94	64	poison	Beurbi test to the maximum number of times "incline prone from standing"
0.550	0.29	2.42	12.25	1.15	12.54	Class	Cookie run test (4×9) or cube race
0.275	0.21	2.64	13.92	3.51	14.13	the second	Standing torso flexion test
0.177	1.00	1.77	2.10	2.05	3.10	poison	Standing test on instep

*** Tabular value of "T" at significance level (0.05) = 2.02**

It is clear from Table (6) that there are no statistically significant differences with a significance level (0.05) between the experimental and control groups in the selected physical variables "under research", which indicates the equivalence of the two groups in those variables.

Table (7)

The significance of the differences between the experimental and control research groups in the variables of rhythmic gymnastics skills "under research" $n_1 = n_2 = 50$

two means is a value	between	group The difference		Experimental group Control		measuring unit	skills	م
		±ع	-س	±ع	-س			
0.316	0.06	0.73	3.19	0.56	3.13	degree	Walking	.1
1.155	0.21	0.67	3.17	0.76	3.38	degree	running	.2
1.696	0.16	0.42	3.13	0.46	3.29	degree	partridge	.3
0.952	0.19	0.55	3.19	0.73	3.38	degree	Flexibility from kneeling	.4
0.941	0.09	0.42	3.10	0.46	3.19	degree	Bass balance	.5
0.401	0.08	0.61	3.06	0.80	3.15	degree	Horizontal rotation	.6
1.141	0.06	0.71	3.23	0.69	3.29	degree	Front balance dart	.7
0.440	0.04	0.42	3.25	0.44	3.21	degree	front balance	.8
0.624	0.08	0.48	3.19	0.49	3.27	degree	horse dart	.9
1.159	0.14	0.46	3.021	0.62	3.35	degree	Bassey's rotation	.10
1.000	0.12	0.42	3.25	0.52	3.38	degree	Twisting movements	.11
0.508	0.08	0.54	3.13	0.62	3.21	degree	Balance movements from stability	.12
1.071	0.15	0.56	3.006	0.67	3.21	degree	Balancing movements from the movement	.13

* Tabular value of "T" at significance level (0.05) = 2.02

It is clear from Table (7) that there are no statistically significant differences with a significance level (0.05) between the experimental and control groups in the variables for the selected rhythmic gymnastics skills "under research", which indicates the equivalence of the two groups in those variables.

Fourth: Means and tools of data collection.

1. Data Registration Forms:

The researcher designed the registration forms for the measurements of the research, where there is simplicity, ease, accuracy and speed of registration in order to collect and tabulate data for statistical processing, namely:

- Registration form for students' measurements (age - height - weight).
- Registration form for students' measurements in variables (physical).

2. Tools used in the research:

- Folding scale.
- Rustameter device.
- Gymnastics hall.

3. Expert Survey Form (Questionnaire):

The researcher designed questionnaires to survey the opinions of experts in the fields of rhythmic gymnastics, tests, measures, curricula and teaching methods. **This is to determine:**

- Components of the fitness elements of modern rhythmic gymnastics
- Tests that measure the components of the fitness elements of rhythmic gymnastics.
- Determine the truthfulness of the cognitive test statements.

4. Variants and selected tests under research:

A- Fitness Test Elements:

▪ Determine the physical qualities of modern rhythmic gymnastics:

The researcher **identified** the physical variables under research by referring to scientific studies and references and then put them in a form. It was presented to (5) experts in the field of rhythmic gymnastics attached (2) **in order to identify the most important of these components. Table (8) shows the most important fitness elements of modern rhythmic gymnastics and the percentage of each.**

Table (8)

The percentage of agreement of expert opinions on the most important physical qualities of modern rhythmic gymnastics

repetition percentage	elements,	Components of physical fitness,		م
%100	5	Muscular endurance	endurance	1
%40	2	Respiratory endurance		
%20	1	carry speed		
%100	5	Fixed balance	balance	2
%100	5	dynamic balance		
%100	5	Static muscle strength	Power	3
%40	2	Dynamic muscle strength		
%100	5	- Power with speed		
%100	5	Compatibility		4
%100	5	agility		5
%100	5	Flexibility		6
%20	1	Precision		7
%40	2	Motor response speed		8

It is clear from Table (9) that the percentage of determining the components of the elements of physical fitness for modern rhythmic gymnastics ranged between (20% -100%) and the researcher was satisfied with (100%) of the opinions of the experts to choose the components of the elements of physical fitness

Scientific transactions for physical fitness element tests:

:

Pre-measurement:

The researcher conducted a pre-measurement on the basic research sample in the cognitive achievement test and the level of performance of rhythmic gymnastics under research, on 16/3/2019.

Execute the tutorial:

The researcher applied the proposed educational program using cognitive trips in its final form on the basic group in the time period on 16/3/2019 AD to 2/4/2019 AD and by two educational units per week, and the time of the educational unit (90) minutes.

Dimensional measurements:

After the completion of the application of the proposed educational program, the dimensional measurement was conducted in the cognitive

achievement test and the level of performance in rhythmic gymnastics under research, on 4/4/2019 AD

Seventh: Statistical Treatments:

The researcher used statistical laws as well as the computer using the statistical program "SPSS" and the following was calculated: arithmetic mean - median - standard deviation. Torsion coefficient - Difference significance test (T) - correlation coefficient The researcher was satisfied with a significant level of 0.05

Presentation and discussion of results

First: Presentation and discussion of the results of the first hypothesis.

1. Presentation of the results of the control group in the level of skill performance "for the selected rhythmic gymnastics skills under research"

It is clear from that there are statistically significant differences between the average of the pre- and post-standards of the control group in the level of performance of the selected skill variables "under research" and it is also clear that there are rates of change between the pre- and post-Qass and in favor of the average post-measurement.

2. Discussing the results of presenting the results of the control group in the level of skill performance "for the selected rhythmic gymnastics skills under research"

It is clear from that there are statistically significant differences between the averages of the pre- and post-standards of the control group in the level of performance of the selected skill variables "under research", where the value of "T" tabular at the level of significant (0.05) less than the calculated value of "T" which

The researcher **attributes** this result to the fact that learning in the traditional way (followed) provides more new and diverse information and the learners' practice of the selected skills "under research" and their knowledge of the content of the performance of the skills through verbal explanation and information that helps to form a clear picture of those skills.

This progress may also be due to the student's practice. A Practically for the chosen skills "**Under research**" And knowing the content of the performance of each skill through verbal explanation of the knowledge and information related to the skills and behavioral patterns that must be available to the student in addition to the model or practical presentation of the skill,

with the student performing and practicing the skill and the accompanying support for skill performance through the teacher or correcting errors. This helps to form a clear picture of those skills.

3. Presenting the results of the control group in the level of cognitive achievement of "the selected rhythmic gymnastics skills under research".

Table (9)

The significance of the differences between the averages of the pre- and post-standards and the percentage of change for the control group in Level of cognitive attainment of "rhythmic gymnastics skills selected under research"

n = 50

two means is a value	between the two	The difference	and post-		Pre- measurement		Variants
			ع±	-س	ع±	-س	
%36.76	23.41	11.12	2.66	30.25	3.60	19.13	Cognitive achievement test

* Value of "T" at significance level (0.05) = 2.06

4. Discuss the results of the control group in the level of cognitive achievement of "the selected rhythmic gymnastics skills under research".

It is clear from Table (9) that there are statistically significant differences between the averages of the pre- and post-standards of the control group in the level of cognitive achievement of rhythmic gymnastics skills under research, where the value of (T) tabular (2.06) at the level of significance 0.05 less than the value of (T) calculated, which was (23.41) and this is shown in Figure (4), and that the percentage change was (36.76%) in the cognitive test of rhythmic gymnastics skills under research.

This is consistent with the study of "Mohamed Hosni Khalil" (2007) (28) in that the traditional method has an impact on aspects of learning, but to a lesser extent.

Thus, the validity of what was stated in the first hypothesis of the research hypothesis, which states:

Second: Presentation and discussion of the results of the second hypothesis.

1. Presentation of the results of the experimental group in the level of skill performance "for the selected rhythmic gymnastics skills under research"

2. Discussing the results of the experimental group in the level of skill performance of the selected rhythmic gymnastics skills under research"

It is clear from that there are statistically significant differences between the averages of the pre- and post-standards of the experimental group in the level of performance of the selected skill variables "under research", where the value of "T" tabular at the level of significant (0.05) less than the value of "T" calculated, which was limited between (22.95) in the skill of "partridge" (68.11) in "movements of curvature and tide", and this is what illustrates, and the proportion of improvement has been limited between (58.28%) as the smallest percentage in the skill of "front balance", and (62.91%)) as the largest percentage in the skill "horizontal rotation".

The use of educational media in the field of learning various sports activities allows the learner a great opportunity to learn, as it helps him to express various knowledge (experiences - activities - and others) in more than one way in a well-planned system, and thus more than one sense of his body's senses is used to receive this knowledge, and also helps to provide live experiences and strong influence, and leads to an increase in the survival of the impact of what he learns, which is reflected in learning by making it strong, alive and felt. Therefore, his ability to absorb the successive stages of the performance of different skills increases through clear vision and sufficient time during the presentation of the various models included in the educational media system, and this allows learners in physical education a wider scope for observation, thinking, understanding, discovery, innovation and consolidation of information in their minds and in this regard confirms Chuo, t (2004) Modern research and teaching methods have proven that learning media are necessary for all types of learning and gaining different experiences in order to achieve the desired educational goals, especially in the field of learning various activities. (31:20)

3. Presenting the results of the experimental group in the level of cognitive achievement of "the selected rhythmic gymnastics skills under research".

4. Discussing the results of the experimental group in the level of cognitive achievement of "rhythmic gymnastics skills selected under research".

It is clear from **that** there are statistically significant differences between the averages of the pre- and post-standards of the experimental group in the level of cognitive achievement of rhythmic gymnastics skills under research, where the value of (T) tabular (2.06) at the level of significance 0.05 less than the value of (T) calculated, which **was (32.15)** and this is shown in Figure (6), and that the percentage change was **(47.63%)** in the cognitive test of rhythmic gymnastics skills under research.

The researcher **attributes** these differences to the fact that the use of cognitive trips through which any information related to mathematical skills can be expressed in many ways such as (voice, written text) and thus generates the learner effectiveness in learning knowledge and information, the information when provided to the learner in more than one way addresses more than one sense of the senses of the learner and thus be more positive and effective.

Thus, the validity of what came in the second hypothesis of the research has been verified

Third: Presentation and discussion of the results of the third hypothesis.

1. Presentation of the results of the experimental and control research groups in the level of skill performance "for the selected rhythmic

It is clear from that there are statistically significant differences between the average of the two dimensional standards of the experimental and control research groups in the level of performance of the brain skill variables at times "under research" and in favor of the experimental group.

Discussing the results of the experimental and control research groups in the level of skill performance of the selected rhythmic gymnastics skills under research It is clear from that there are statistically significant differences between the average of the two dimensional standards of the experimental and control research groups in the level of performance of the selected skill variables "under research" where the value of "T" tabular at the level of significant (0.05) less than the value of "T" calculated, which was limited between (3.12) in the skill of "walking" (23.59) in the skill of "The balance movements of the movement" and the percentage of improvement has been limited to between (14.43%) as the smallest percentage in the skill of "running", (44.75%) as the largest percentage in the skill of "balance movements of stability"

The researcher returns this result to the fact that the method of cognitive trips is one of the modern technologies, and one of the innovations and applications of educational technology in teaching and learning motor skills in physical education activities in an interesting and attractive manner for the attention of the learner's senses, as the focus moved from the method of verbal explanation, model and commands in education to focus on communication processes by watching the skill through video, serial images and slow presentation, as well as with the presence of written and read text, sound effects and music within the educational program, all This gives a great opportunity for the learner to see the technical aspects of the skill clearly and gives the student the correct kinetic perception of the skill, all of which led to the interaction of students with the program positively and in a way that raises their motivation to learn without feeling unwilling to obtain information, as the importance of using technological means in the learning process in physical education lies in arousing the learner's interest, satisfying his needs for learning and enriching his areas of expertise, and it also contributes to the development of his ability to meditate and the accuracy of observation. Where information is provided to them through integrated programs with the finest colors, backgrounds, movements and sound effects, in order to give the learner the opportunity to watch the motor skills in their artistic stages in the best way so that they can learn and perform them correctly.

3. Presenting the results of the experimental and control research groups in the level of cognitive achievement of skills

Selected rhythmic gymnastics is under consideration".

It is clear from that there are statistically significant differences between the average of the two dimensional measurements of the experimental and control research groups in the level of cognitive achievement and in favor of the average dimensional measurement of the experimental group.

4. Discussing the results of the experimental and control research groups in the level of cognitive achievement of skills

Selected rhythmic gymnastics is under consideration".

It is clear from Table (25) that there are statistically significant differences between the averages of the two dimensional standards of the experimental and control research groups in the level of cognitive achievement of rhythmic gymnastics skills under research, where the value of (T) tabular (**2.02**) at the level of significance 0.05 less than the value of (T) calculated, which **was (7.90)**

and this is shown in Figure (8) and that the percentage change was (7.90%) in the cognitive test of rhythmic gymnastics skills under research.

The researcher **attributes** these differences between the two groups to the fact that the way of learning using the cognitive trips that the students of the experimental group underwent look at them as interactive and their goal is their growth and maturity and their access to information without getting bored, so their role is positive and active in the educational process, which increases their motivation to learn, and the way of learning using cognitive trips treats the student as not just a recipient of information, but rather a participation and a university for this information and knowledge that is characterized by its diversity and multiple sources. While the traditional method using verbal explanation and the performance of the practical model that the students of the control group underwent looks at them as mere receivers and recipients of information only, their role is negative in the educational process, which reduces their motivation to learn and the matter is not limited to just the existence of differences only, but the experimental group achieved a higher percentage of improvement than the control group in the level of cognitive achievement.

Abdulaziz Tolba (2010) (16) confirms that the old view of learning (the traditional method) sees the learner just a mind in which information is poured only and he is just a recipient, while the modern view of learning looks at the learner as an interactive organism and its goal is its growth and maturity and not the goal is to save information.

Thus, the validity of what came in the third hypothesis of the research hypotheses, which states the following: "The existence of statistically significant differences between the average of the two dimensional standards of the experimental and control research groups in the level of performance of the selected skill variables "under research" and the level of cognitive achievement and in favor of the experimental group.

Conclusions.

Within the limits of the research objectives and the results reached, the following can be concluded:

- 1- The traditional educational program used with the "control group" led to an improvement in the learning aspects of the selected rhythmic gymnastics skills "**under research**", as it showed significant differences between the pre- and post-measurement in favor of the post-measurement as well as in the percentage of improvement in favor of the post-measurement.
- 2- The cognitive journeys applied to the "experimental group" led to an improvement in the learning aspects of the selected rhythmic gymnastics skills "**under research**", as they showed significant differences between the pre- and post-measurement in favor of the post-measurement as well as in the percentage of improvement in favor of the post-measurement.
- 3- Cognitive journeys were more influential on the level of cognitive attainment than the traditional method.

Recommendations

- 1- Interest in the use of multimedia through the use of computers as means to keep pace with the nature of the current era.
- 2- Attention to developing educational programs using cognitive trips to improve and develop rhythmic gymnastics skills so that the level of learning rhythmic gymnastics skills for students of faculties of physical education can be raised.
- 3- Interest in producing educational programs through the use of knowledge trips in all sports.
- 4- Using all that is new and innovative in the field of educational technology to learn the motor performance of various sports activities.

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