International Journal of Psychosocial Rehabilitation, Vol. 24, Issue 02, 2020
ISSN: 1475-7192

The effect of random arousal strategy on improving creative thinking and technical performance of some kinematic formations in rhythmic gymnastics for students

[1]Assist. Prof. Dr. Maysaa Nadeem ahmed , [2]Assist. Prof. Dr. Dhafer Namous Al-Tai

Abstract

To reveal the impact of the irregular excitation methodology on improving inventive reasoning and the aesthetic exhibition of some engine arrangements in musical aerobatic, the specialists utilized the exploratory methodology with the plan of two equivalent gatherings on an example of (40) understudies of the fourth phase of the School of Physical Training and Sports Sciences for Young ladies - College of Baghdad, and after finishing Exploration techniques for the primary examination, the fulfilment of its tests, preparing the information measurably and acquiring the outcomes. The two scientists arrived at the most significant resolutions, including The technique of arbitrary excitement and the strategy utilized by the school affected improving imaginative reasoning and masterful execution. A portion of the chose kinematic developments in your musical aerobatic in differing extents and for both the trial and control gatherings. The people of the gathering that utilized the arbitrary excitation system outflanked the strategy utilized in the post-tests. The analysts suggest the need for embracing thinking procedures, remembering the methodology of irregular excitement for aesthetic execution, musical tumbling aptitudes, for all stages. Leading comparable exploration utilizing thinking procedures to create and improve different kinds of speculation just as fundamental aptitudes in cadenced sedation for every scholastic stage.

Keywords: *Random arousal, creative thinking and rhythmic gymnastics.*

Introduction

The logical realities are clear in the individual's quest for thought and considering what characteristic factors rotate around him that welcome him to constant examination and jump into finding new showing methodologies, strategies and techniques that upgrade his imaginative deduction, and simultaneously give the instructive cycle a positive drive that raises the consideration and inspiration of understudies during their application.

The musical vaulting match-up is one of the serious individual games with numerous and complex engine arrangements that are finished utilizing various devices, for example, the individual, the band, the rope, the tape, and the ball, as the use of the kinematic developments with these instruments from the understudy's body assists with picking up her great quality, as the body consistently follows The wide development of devices in different developments and because of these numerous developments where the understudies depend on engine similarity and

[1] University of Baghdad/ College of Physical Education and Sports Sciences for Girls
[2]Ministry of Education / General Directorate of Diyala Education.
Email: maysaa.n.68@gmail.com [1] , dafer.sport63@gmail.com [2]

deftness, so their exhibition helps inventive speculation, as the kinematic arrangements require the utilization of the apparatus and control of body developments proper to them and when the understudy performs ball abilities, for instance; Consideration must be centered around the ball and not on the body, particularly while tossing the ball to the top, for example the understudy doesn't remain without a development and trusts that the ball will arrive at it once more. Or maybe, she makes the developments that qualify her to play out the following development in an incorporated, persistent and imaginative way and here the understudy must be liable for her choices in Arrangements execution and how to perform them. Just as for the remainder of the devices that the understudy utilizes in her presentation. Late investigations and examination managing the segments of the instructive cycle have zeroed in on the accomplishment of this cycle, as it is the methods for communicating information and information to the understudy through the genuine training measure, which is showing understudies how to function their psyches and not get data. To accomplish this, the focal point of the instructive cycle should move from enthusiasm for the educational plan and the logical material and courses it contains to zeroing in on the psyche of the student (the understudy) and himself, and how he gets data, measures and sorts out it to make it simple to recall and apply. [1]

The field of encouraging procedures has as of late saw a gigantic advancement chiefly to the utilization of dynamic and successful instructing techniques dependent on the brain of the student, the positive cooperation between the instructor and the student, and the change from a memory culture that depends on retaining and recollecting data to a culture of innovativeness that empowers the student to utilize it in various circumstances. The irregular excitement methodology is one of the instructing procedures that conceptualize the mind through invigorating it to produce the biggest measure of imaginative thoughts that improve the innovative thinking about the understudies. It targets finding a union between logical ideas and unintended arbitrary words and connecting them to the thought under scrutiny. Thusly, it requires proficient capacities in building up the instructor's reasoning. [2]

It is one of the instruments of delivering inventive thoughts by moving the mind and animating it to break out of past moulds by making new connections between things that have no connections between them. [3] It is a sort of imaginative centre that is depended on when people or gatherings need to produce novel thoughts, and the word is arbitrarily looked over among the thoughts introduced for conversation. The significance of the exploration is that it is the primary investigation (as indicated by the analysts' information) to utilize the system of arbitrary excitement in your musical vaulting, which will allow understudies to pick the engine designs fitting to their capacities and hence upgrade their innovative reasoning, which adds to the improvement and improvement of handy and specialized execution.

Research problem

The majority of the showing procedures, techniques and strategies depend on picking the fitting methodology, strategy, or strategy to accomplish the conduct objectives that every instructor attempts to reach. Also, given the way that the techniques utilized are not, at this point adequate to stay up with the prerequisites of the instructive cycle right now, because the instructor no longer speaks to the incomparable position that chooses everything and the understudy not, at this point speaks to the negative side in training so his job is restricted to following requests just, so the understudy's certainty must be expanded. His capacity to assume liability in the imaginative execution measure by acclimating him to intuition, innovativeness and arriving at the objective. In this way, the exploration issue was distinguished in addressing the accompanying inquiry: Does the irregular excitation procedure affect improving imaginative reasoning and the aesthetic presentation of some dynamic arrangements in your cadenced acrobatic among understudies?

Research objectives

1. The effect of using the random arousal strategy in improving the creative thinking and artistic performance of some kinetic formations in the rhythmic gymnastics of the students
2. The effect of using the used method in improving creative thinking and artistic performance of some kinetic formations in the rhythmic gymnastics of students
3. Comparison of the effect of each of the random excitation strategy and the method used on the two variables (creative thinking and the artistic performance of some kinetic formations in the rhythmic gymnastics of the students with the post-tests.

Research Methodology

The researchers used the experimental approach to suit the research problem and objectives.

Research community and sample

The research community included the fourth stage students of the College of Physical Education for Girls - the University of Baghdad for the academic year 2018-2019 and their number was (91) students distributed over four divisions. Division (A), Officer (15) female, and from Division (D).

The two researchers took into consideration the element of homogeneity among the sample members, as they were all of the same gender, one age group, and one stage of the study, thus achieving the condition of homogeneity of the sample.

Research tools

Creative thinking test

The researchers approved the creative thinking test designed,[4] which is designed to measure creative thinking in rhythmic gymnastics for fourth-year students in the College of Physical Education - University of Baghdad. Which was legalized a second time to students of the fourth stage - Faculty of Physical Education - University of Mosul. The researcher applied it,[5] and it consists of three abilities (fluency, flexibility, originality) and these tests are:

The first test: passing barriers.

Second test: rolling the ball while moving the body in different positions.

Third test: tap the ball while moving the body in different positions.

Fourth test: moving with the hoop.

Fifth test: rotation of the hoop with the body moving in different positions.

Sixth test: rolling the hoop on the ground in different ways.

The number of motor responses for each test is calculated in an estimated time of one minute. The following levels were relied upon in evaluating the creative thinking tests for each of:

1. Fluency: The student is given one score for each repeated movement response.
2. Flexibility: The student is given one score for each new type of movement response, regardless of the number of repetitions.
3. Originality: The score is given to the student according to the number of iterations for each new movement response, starting from the repetitions (1-10), meaning that the motor response that is repeated once is given to the student who has performed (10) degrees and the response that is repeated twice is given to her (9) grades and so (1) shows that.

Table 1. Shows the degree of each repeat original movement response

Repeat motor responses	1	2	3	4	5	6	7	8	9	10
The degree of its originality	10	9	8	7	6	5	4	3	2	1

Second: Determining the optional motor configurations under consideration

The steps for the kinematic formations are defined as follows:

A. The kinematic formation with the ball tool

The starting position: the brook, hugging the head and holding the ball with both hands and holding it down, swinging the ball towards the body inward and then upward with the right leg extended forward and bending and the arms extended up to the left and right, then rolling the ball on both arms, throwing it up and then standing.

The first line: tap the ball under the left foot and receive it with the left arm, throw the ball and receive it over the head from the left arm to the right arm. Waltz with opposite arms movement with throwing and receiving the ball from back to the front each time. A cat with the ball purring on the ground and receiving, scissoring with the throw and receipt of the ball. Half a turn by rolling the ball on the back and receiving it with both hands, throwing the kick with both hands and receiving it with the right arm.

End position: Hip roll, throw the ball up and receive with both hands and return to the starting position.

B. The person's movement formation is as follows: the person's rotation in the form of (8) in front of the body behind the head, then the person's rotation around the wrist from walking three steps forward and then backwards, throwing the person from the bottom of the weighted leg to receive it with the aiming hand of the walk three steps, the weighted circular pendulum With a cross, he hit the two figures on the ground, then rolled the side, then hit the two figures in the air over the head.
C. The motor configuration of the hoop was as follows: The rotation of the hoop around its axis. Throw the hoop horizontally up and out from under the legs. The hoop bounces as the free man crosses over it. Rotation of the collar around the wrist while making a front body scale. Roll the hoop on the ground while performing a stepping stone. Throwing and receiving hoop with scissor jump action.

It gives the student the freedom to choose a kinetic formation. The score is from (10) according to the previously prepared evaluation form used by more than one researcher. Noting the fluidity of skill and mistakes made, the beginning and end of the formation. The evaluation is done directly by a committee of five components, as it is given to each laboratory of the components in the experiment, then the highest and lowest degrees were deleted and the average for the remaining two degrees was then combined with the main score of the components with the average of the two grades, the remaining two, and divided by two, as:

The final grade= The main component degree + the average of the remaining two degrees/2[6]

Pre-tests

The two researchers relied on conducting pre-tests, as it was done after giving an introductory unit on kinematic formations. The creative thinking test and the motor formation of the experimental group were conducted on Monday 10/29/2018. And the control group on Wednesday 10/31/2018. Also, the two researchers conducted the homogeneity and purity of the sample members with creative thinking and the technical performance of the optional motor formations through the pre-tests, as shown in Table (2).

Table 2. Shows the mean and std. deviations of the pre-tests and the value (t) for the experimental and control groups

Tests	Group	Mean	Std. Deviation	(F)	Sig.	(t)	Sig. (2-tailed)
First test	Experimental group	15.13	1.187	0.070	0.793	1.055	0.300
	Control group	14.67	1.23				
Second test	Experimental group	15.73	1.75	0.005	0.947	0.923	0.364
	Control group	15.13	1.81				
Third test	Experimental group	15.33	1.05	0.217	0.645	0.892	0.380
	Control group	14.93	1.39				
Fourth test	Experimental group	16.13	1.60	0.000	1.000	0.814	0.423
	Control group	15.67	1.54				
Fifth test	Experimental group	15.00	1.31	0.287	0.596	0.274	0.786
	Control group	14.8667	1.36				
Sixth test	Experimental group	14.80	1.48	0.707	0.408	0.837	0.410
	Control group	14.40	1.12				
Motor formations	Experimental group	4.20	0.68	0.050	0.825	0.529	0.601
	Control group	4.07	0.74				

Table (2) shows Levin (F) values for homogeneity and error ratio that was less than (0.05) level, indicating the homogeneity of individuals in tests of creative thinking and motor formations in rhythm gymnastics. As for the

calculated value of (t) and its error rate, it is also less than the level of (0.05), which indicates the equivalence of the two groups in the research variables.

The main experience

The two researchers began implementing the main experiment on the group, according to the schedule set by the Deanship of the College and the Department of Individual Games, for (8) weeks. At a rate of one teaching unit per week, as the experimental group studied using the random excitation strategy,

Among the things that must be considered when implementing a randomization strategy:

1. Allocate time for random excitation (3-5) minutes.
2. The excitement takes place in a serious atmosphere, because the nature of the activity may encourage students to present ideas that are not related to the topic.
3. Multiple excitations can be presented simultaneously, not one excitement.
4. Encouraging female students to present random effects of their own.
5. Do not worry if students do not find new ideas.
6. Develop a plan to benefit from this strategy and use it for a short time.
7. This strategy can be implemented individually, in groups, or pairs. [7]

And the control group in the manner used by the school subject and under the supervision of one of the researchers and the assistant work team. And the implementation of the curriculum began from Monday 5/11/2018 until Wednesday, 26/12/2018. The time of the main section in one educational unit reached (60) minutes, and the applied (practical) part includes training on the movement formation chosen by the student and repeating it without a tool, and then using the tool, and correcting errors from the school through guidance, giving instructions and alerting to errors.

Post-tests

Post-tests were conducted for the experimental group on Monday 7/1/2019, and the control group on Wednesday 9/1/2019 in the gymnastics hall by the subject school and the auxiliary work team by evaluating the test creative thinking and performance of the movement formations under investigation using the same evaluation form used from Before the subject school, after informing the students that this test is a practical exam for the first semester.

Statistical means

The data were processed by the SPSS system using the following laws to achieve the objectives and hypotheses of the research (arithmetic mean, standard deviation, Levin value for homogeneity, (t) test for correlated and non-correlated samples, level of significance)

Results

Presenting the results of the pre and post-tests for the experimental group.

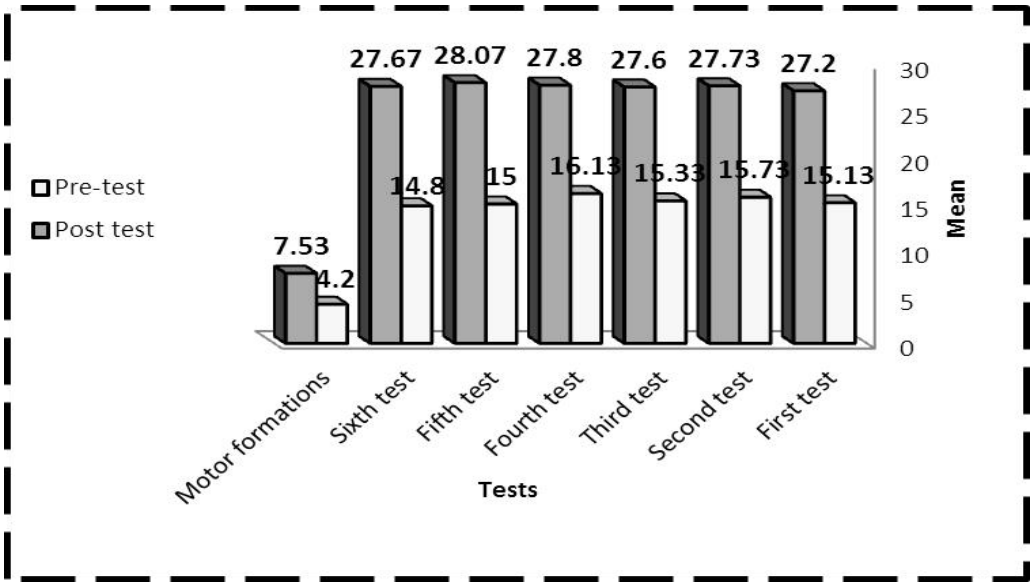

Figure1. Shows the mean for the pre-tests and post-tests of the Experimental group

Table 3. Shows the mean, the std. deviations of the differences & the value (t) for the Experimental group

Tests	Mean	Std. Deviation	(t)	Sig. (2-tailed)
First test	-12.0667	1.75119	-26.687	0.000
Second test	-12.0000	2.42015	-19.204	0.000
Third test	-12.2667	1.62422	-29.250	0.000
Fourth test	-11.6667	2.19306	-20.604	0.000
Fifth test	-13.0667	2.76371	-18.311	0.000
Sixth test	-12.8667	2.79966	-17.799	0.000
Motor formations	-3.3333	.89974	-14.349	0.000

Displaying the results of the pre and post-tests for the control group

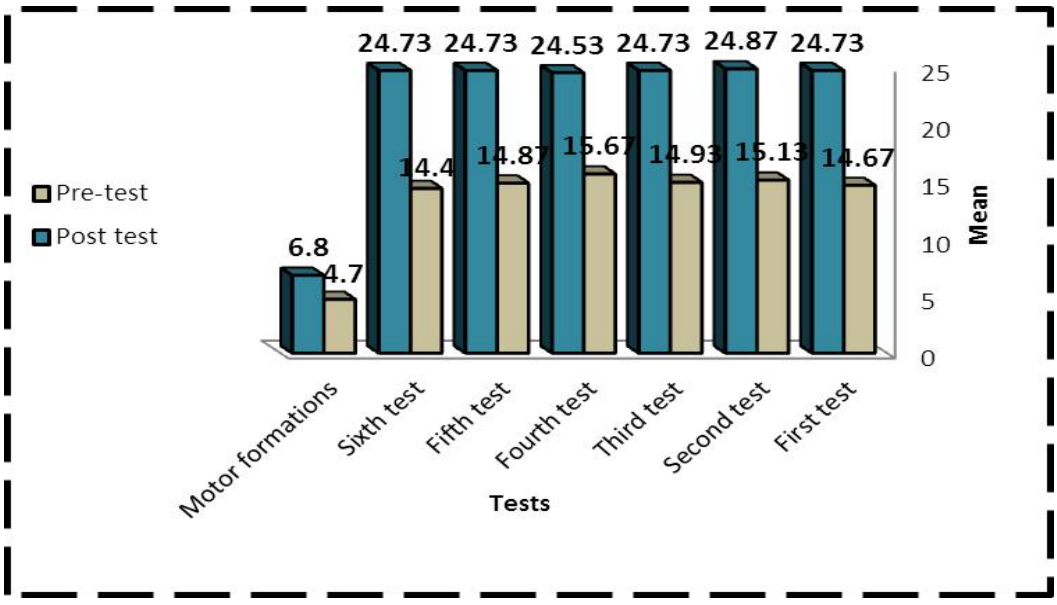

Figure 2. Shows the mean for the pre-tests and post-tests of the Control group

Table 4. Shows the mean, the std. deviations of the differences & the value (t) for the Control group

Tests	Mean	Std. Deviation	(t)	Sig. (2-tailed)
First test	-10.0667	2.01660	-19.334	0.000
Second test	-9.7333	2.86523	-13.157	0.000
Third test	-9.8000	2.21037	-17.171	0.000
Fourth test	-8.8667	1.99523	-17.211	0.000
Fifth test	-9.8667	2.44560	-15.625	0.000
Sixth test	-10.3333	2.12692	-18.816	0.000
Motor formations	-2.7333	1.09978	-9.626	0.000

Presenting the results of the dimensional tests for the experimental and control groups

Table 5. Shows the mean and std. deviations of the post-tests & the value (t) for the experimental and control groups

Tests	Group	Mean	Std. Deviation	(t)	Sig. (2-tailed)
First test	Experimental group	27.20	1.47	4.422	0.000
	Control group	24.73	1.58		
Second test	Experimental group	27.73	1.62	4.873	0.000
	Control group	24.87	1.60		
Third test	Experimental group	27.60	1.24	5.339	0.000
	Control group	24.73	1.67		
Fourth test	Experimental group	27.80	1.52	5.425	0.000
	Control group	24.53	1.77		
Fifth test	Experimental group	28.07	2.25	4.449	0.000
	Control group	24.73	1.83		
Sixth test	Experimental group	27.67	1.80	4.525	0.000
	Control group	24.73	1.75		
Motor formations	Experimental group	7.53	0.74	2.646	0.013
	Control group	6.80	0.770		

Discussions

The aftereffects of tables (3) and (4) demonstrated the determined estimations of (t) and the mistake rate between the pre and post-tests for the test and control gatherings and to help the post-tests. This affirms the impact of the arbitrary excitation technique and the strategy utilized regarding the matters of the examination test, both in a trial of innovative reasoning and the presentation of the engine arrangements in your cadenced acrobatic.

Concerning Table (5), the consequences of which were in the post-tests between the two gatherings for the test gathering, which affirms the powerful impact of the arbitrary excitation system on the individuals from the exploratory gathering. As one of the instruments of animating the mind to deliver new innovative thoughts and create new implications through finding new connections between things that have no connection between them.[8] The two specialists worked during the instructive units by inciting the understudies during their utilization of the chose development arrangements in your cadenced aerobatic, for instance.[9] The school gives the word (objective) when playing out the dynamic development with the ball, which implies that the understudy will hurl the ball and get it with the arms of one of them. Or then again the word (kilogram),[19] which implies the development of the scale with the arrangement of the circle.[10] Or then again the word (scissors) to play out the scissor development with the character set. Furthermore, other irregular words. In the innovative reasoning test, the aftereffects of this examination are predictable with the investigation and the investigation,[11] which found a factually critical contrast at the degree of (0.05) between the second test bunch that was contemplated utilizing arbitrary incitement and the benchmark group that considered utilizing The typical technique is agreeable to the second test gathering.[12] Concerning the tests for kinematic developments,[13] the outcomes are in concurrence with the investigation of the examination, which affirmed the prevalence of the exploratory gathering over the benchmark group.[14]

Conclusion

The scientists arrived at the most significant resolutions, including The procedure of arbitrary excitement and the technique utilized by the school affected improving inventive reasoning and aesthetic execution. A portion of the chose kinematic developments in your musical aerobatic in changing extents and for both the trial and control gatherings. The people of the gathering that utilized the irregular excitation procedure outflanked the technique utilized in the post-tests. The scientists suggest the need of receiving thinking procedures, remembering the methodology of arbitrary excitement for creative execution, cadenced acrobatic abilities, for all stages. Leading comparative exploration utilizing thinking techniques to create and improve different kinds of intuition just as fundamental aptitudes in cadenced sedation for every single scholastic stage.

References

1. Jumah, Zainab Murad Hammoud: The Effect of Random Arousal Style on the Development of Creative Thinking and Expressive Performance among Fifth-Grade Literary Students, Unpublished Master Thesis, College of Basic Education, University of Babylon - Iraq, 2011
2. The Discourse, Amina Mansour (2013); Random excitement fuels creativity. http://alrai.com/article/584368.html
3. Thouqan Obaidat, Suhaila Abu Al-Sameed (2009); Teaching Strategies for the Twenty-first Century, Teacher's Guide and Educational Supervisor, 2nd Edition: Oman, Debono for printing, publishing and distribution.
4. Al-Zubaidi, Muhammad Abdul-Muhsin Rahyo (2012): The effect of the strategies of directed imagination and random arousal on achievement and development of creative thinking and emotional intelligence among first-grade intermediate students in Physics, University of Baghdad, College of Education, Ibn Al-Haytham, unpublished doctoral thesis, Baghdad.
5. Al-Shammari, Alham Ali Hassoun (2009); The Impact of Guided Discovery Exercises on Creative Thinking, Artistic Performance and Retaining Ball Skills in Rhythmic Gymnastics, Master Thesis (unpublished), College of Physical Education, University of Baghdad.
6. Salah al-Din Mahmoud Allam (2006); Thinking Without Borders: Cairo, the World of Books.
7. Al-Ani, Amira Abd al-Wahid (1986); Rhythmic Gymnastics and its Relation to the Development of the Capacity for Creative Thinking, Master Thesis, College of Physical Education, University of Baghdad
8. Naomi, Fadia Mahrous, Zarzis (2002); The Effect of Using Problem Solving Method on the Development of Creative Thinking Level of Skill Performance in Rhythmic Gymnastics, Master Thesis (unpublished), College of Physical Education, University of Mosul.
9. De Bono, Edward(1995); Teach yourself to think. London: Penguin Group.
10. Feldhausen, See the excitement in the random collection of eighth-grade students in the history of the United States, Unpublished MA Thesis, United States ‹1990.
11. Hanuscin, The impact of random excitation in the collection of the students in the fourth preparatory material neighbourhoods Unpublished MA Thesis, America,2008.
12. Nayak, A.& Roa, V. (2004); Classroom teaching: Methods and practices. New Delhi: APH Publishing Corporation.
13. Sizer, T. & Meier. D. (2013); Habits of Mind. Available from:
14. http://www.essentialschools.org/pub/ces_does/about/phil/habits.htmI[Accessed: 13 July 2013].