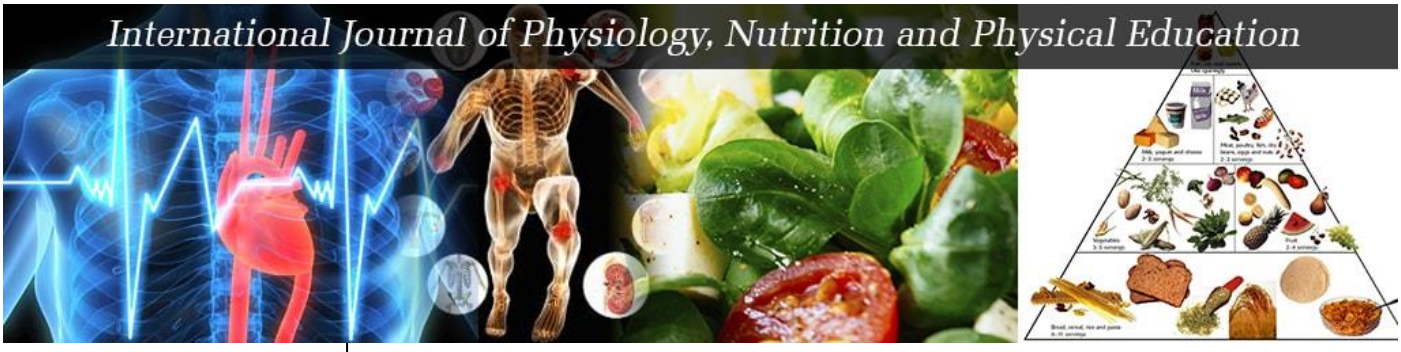

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The effect of an educational program using kinesthetic intelligence on motor visualization and learning the skills of the front and back hand jump on the mat of floor movements in artistic gymnastics for female students

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Abstract
The educational or teaching process focuses on transferring knowledge and information from the teacher to the students in an appropriate way that makes this process better, faster, and with less effort. A good teacher is the one who can diversify by using different methods and techniques to avoid the boredom that may afflict the student during teaching, resulting from (repetitive) use. One method for all students, and therefore the teacher must search for the best method that suits the nature of the student and the teaching environment and in a way that stimulates students' motivations, and thus achieves the desired goal of learning, as the educational program is considered a "constructive organization of educational activities," that is, it is an organization of learning activities in A field that is based on predetermined goals within the framework of a large entity. The educational program is an entity of the curriculum, and one of its components. The relationship between them is also a general and specific relationship. The school curriculum may contain many programs, the formats of which may vary depending on their purpose and value. Kinematic intellect enables the learner to solve tasks manually using product manipulation, movement and experimentation, and the physical skills, as well as to correlate the mind and the body through coordination of the body movements. Kinesthetic intelligence is a strong suit for those who like sports and somehow are involved in physical activities, dancing, and other types of creative movements as well as dramatizations. Other than acting and playing my role well and speaking in front of the people. However, walking, washing hands and other minor tasks, as well as some light work, are how he manages. It is not necessary to know these pupils, it is enough just to observe them and look into the issues of physical fitness. They are the ones who possess high physical intelligence that involves bodily movement and actions. Their working well with the body movement, execution of operational tasks and physical control makes them easily be adaptive to the various tasks assigned. They have excellent hand-eye coordination when working, meaning we as individuals enjoy this. This type of intelligence means our awareness of our body, and translating this awareness into all the activities that we perform. We notice this intelligence in many high-level athletes and even beginners. It is the intelligence that each of the athletes possesses. The problem of the research lies in: because some teachers still impose the teaching method on the student. Without taking into account their inclinations for this or that method, and because the inclination and desire to apply and learn are among the basics of learning motor skills in gymnastics, it has become necessary for teachers to know the orientation of their students towards their preferred teaching method in order to increase the effectiveness of positive participation in the lesson, and therefore the researcher wants to study this phenomenon. Another goal includes the establishing notion of reality by means of motor intelligence as it relates to performance and furthering on the development of motor perception; as well as the learning of forward and backward jumping skills and of moving in on the floor mat in gymnastics for the third-year female students at the College of Physical Education and Sports Sciences. It can be considered as the small scientific attempt which provides food for thought for the students as well as our motherland. The chapter included third: The researcher was using a right controlled laboratory design where they were running pre-tests on all the elements. Undergraduates of the third stage at Robert Abelson University College of Physical Education and Sports Science (55 in total) filled in the role of the research population.

In total, fifty people were randomly chosen for the experiment, five of them were included to the experimental group whereas 45 others served as the control sample. There were four 90-minute educational units in the exploratory curriculum, and students completed one unit each week. The researcher used instructional units that utilized kinetic intelligence to transform the learning settings, shorten the learning time, and motivate the students in the experimental group. Regarding Chapter 4, it contained: The second objective of the study was to analyze the changes in pre- and post-test scores between the experimental and control groups of female artistic gymnastics students in order to determine the efficacy of an instructional program utilizing kinetic intelligence in motor perception and the acquisition of the forward- and backward-hand jump on the floor movement mat. According to the study's author, female gymnasts should focus on developing their forward and backward hand jump abilities on a floor mat, as well as utilizing motor intelligence in motor visualization.
Researching ways to help female students master the fundamentals of sports, such as motor visualization utilizing kinetic intelligence and artistic gymnastics skills like hopping forward and back on a mat. A curriculum that places an emphasis on motor visualization and the application of kinetic intelligence to the acquisition of mat jumping skills (both front and back hands). Research on artistic gymnastics floor routines for female pupils of varying ages is under underway.

Keywords: Kinesthetic intelligence, educational program, back hand jump, artistic gymnastics, female

Introduction

Interests in the current period have been directed towards how to develop the educational process in general and the lesson of physical education in particular by making it a model lesson based on solid scientific rules and foundations, and this is what we find in all scientific research and studies that would advance this field because of the activities and games it contains. Activities serve the learner and help him evaluate his ideas and provide him with a sufficient creative background to be the leader of the educational process in the future [1]. Therefore, we try to invest all the different sciences to serve this field, including motor learning, which is one of the sciences of physical education and sports science, which aims to find new and innovative ways in developing the educational aspect of students. Students invest all their motivations and inclinations towards practicing and learning all sports activities.

The goal of any good educational or teaching process is to ensure that students learn as much as possible from their teachers as quickly and efficiently as possible. A smart educator knows how to keep their lessons interesting and engaging for their students by incorporating new ideas and approaches. One method for all students, and therefore the teacher must search for the best method that suits the nature of the student and the teaching environment and in a way that stimulates students' motivations, and thus achieves the desired goal of learning.

The educational program is considered a "constructive organization of educational activities," meaning that it is an organization of learning activities in a certain field [2, 3], based on predetermined goals within the framework of a large entity. The educational program is an entity of the curriculum, and a component of its components. The relationship between them is also a general and specific relationship. The school curriculum may contain many programs, the formats of which may vary depending on their purpose and value. A person with kinesthetic intelligence is one who learns best by doing; they are adept with physical skills, can handle objects, and can bring their mind and body together through coordinated movement. Sports, dance, creative movement, and performance are all areas that people with kinesthetic intelligence like. And performing for an audience. And his capacity to engage in routine physical activity and light manual labor. Observation, particularly in the context of athletics, can reveal these students' learning styles. People with a high level of physical motor intelligence are those people. Physical control, task execution, and body mobility are areas in which they excel [4]. They have excellent hand-eye coordination when working, meaning we as individuals enjoy this. This type of intelligence means our awareness of our body, and translating this awareness into all the activities that we perform. We notice this intelligence in many high-level athletes and even beginners. It is the intelligence that each of the athletes possesses, and the sport of gymnastics is one of the sports in which the level of technical performance has reached the point of Creativity, so it has become necessary to find educational means and methods that include reaching the planned level, and it is necessary to follow the pace of development by using the best means and methods that have an impact in improving the level of technical performance of learners, as it is one of the difficult sports in its performance and the rules of playing it are subject to many The physical, motor, mental and psychological variables are in line with the needs and requirements of the rules of play in this sport, which is what urged those concerned and specialists to adopt research [4, 5] and investigation into everything new that helps in the progress and development of the sport of gymnastics because the development of teaching methods and methods and their diversity contributes better to the process of learning and students' acquisition of aspects. Cognitive, skill and motor skills, and are more effective in achieving the goals of the educational process. Among them is the use of kinesthetic intelligence because of its importance in the field of the educational process [6], as it works to reduce the time, effort, and cost, in addition to being one of the techniques that helps in applying therapeutic methods in an attempt to improve the level of student achievement.

Research problem

Scientific and technological progress plays a major role in raising the level of knowledge and skills of any game, including the gymnastics game, due to its multiplicity of activities and the large number of movements with different difficulties, which require the learner to make different transitions and movements while maintaining a better level of performance. Through the researcher's experience as a teacher of the game, she found that the method of teaching used, or the so-called traditional method, is the common teaching method and it continues until the present time and cannot be dispensed with. However, contemporary changes, the explosion of knowledge, and tremendous progress in the field of learning and communication have made the challenges and requirements of the educational process too great to be met by the teaching method used by the teacher alone for several factors. Among them is the lack of availability of capabilities, the academic or social environment, or the method of presenting content, etc., because some teachers still impose the teaching method on the student without taking into account their inclinations for this or that method, and because the inclination and desire to apply and learn are among the basics of learning motor skills in gymnastics, so it has become necessary to Teachers need to know the orientation of their students towards their preferred teaching method in order to increase the effectiveness of positive participation in the lesson. And in accordance with

this, the researcher seeks to get to know this phenomenon and create its exact reality via motor intelligence culminating in improving the motor perception and learning the skills of jumping forward and backward by movement of the hands on the circuit of movements. Gymnastics on the floor for the college students of the third year for the college of the physical education and sport sciences. It is nothing remarkable, but a small scientific contribution devoted to this constituency and our dear nation. The aims of our research are: Decide on the influence of the curriculum via motor intelligence through exercises in motor visualization and development of skills of doing a jump forward and backward hands on the mat of simple movements in artistic gymnastics for female students. The appreciated validation of the effectiveness of influencing muscle memory and studying the method of launching both the front and the back hands movements on the surface of the floor in gymnastics within the educational curriculum with the help of motor intelligence and the exercise program selected by the teacher.

Research hypothesis

- Artistic gymnastics classes that incorporate motor intelligence into their curricula help female pupils develop better motor perception and master floor exercises like forward and backward handsprings.
- There is an advantage in improving motor perception and learning the skills of jumping forward and backward hands on the mat of floor movements in artistic gymnastics between the educational curriculum using motor intelligence and the curriculum approved by the teacher.

Research areas

- During the 2024-2025 school year, female students enrolled in the human field/third stage at the University of Karbala's College of Physical Education and Sports Sciences.
- Temporal scope: 3/1/2023 until 5/3/2023
- Spatial field/closed hall - College of Physical Education and Sports Sciences - University of Karbala.

Approaches to research and field operations

- The researcher employed the experimental method with pre-tests administered to equal groups as part of the research approach.
- Everyone involved in the study and its participants: Female students from the third stage at the University of Karbala's College of Physical Education and Sports Sciences (55 in total) served as the research population. A total of fifty people were randomly recruited for the study; five of those people were assigned to the experimental group and forty-five to the control group. Search and rescue.
- For the purpose of demonstrating that the research sample members were homogeneous, we examined their height, weight, and abilities, all of which are connected to the research variables being studied.

Table 1: Illustrates how uniform the study population was with regard to the research variables and measures of height and weight.

Skewness Coefficient	Standard Error	Standard Deviation	Mean	The arithmetic mean	Greatest score	Lowest score	Sample	Unit of measurement	Variables
-0.11	00676	03702	1.58	1.5787	1.65	1.50	30.00	سم	Length
0.54	1.00179	5.48153	69.00	68.4333	79.00	60.00	30.00	كغم	Weight
0.84-	34818	1.90703	22.00	21.4667	24.00	19.00	30.00	سنة	Age

From the results shown in the table above, we see that the sum of the values was not significant, and this indicates significance, and this indicates the homogeneity of the research sample.

Methods, devices and tools used in the research

Research methods

1. Observation
2. Questionnaire form.
3. Tests and measurement

Used devices and tools

1. Acer computer.
2. (2) video cameras (Canon)
3. Pens (50).
4. Ground movement mat is legal.
5. Sponge rugs (25)
6. (1 display screen), type (Samsung)
7. (Educational wooden boxes) (20)
8. High pressure sponge mat (2)
9. Educational booklet (25) booklets
10. DJ (1)
11. Technical performance evaluation form.

Field research procedures

Identifying the skill being researched

Goal of the experiment was to define the skill studied within the vocabulary of the artistic gymnastics curriculum for athletic gymnastics third stage that is included in both sport and physical education faculties, [7] and was formed to be consistent with the research topic and educational curriculum prepared for it.

The exploratory experience

The exploratory experiment was conducted on 1/3/2023 on a sample of the research community, which consisted of (5) female students who did not participate in the main experiment, for several objectives, including: The exploratory experiment was conducted on 1/3/2023 on a sample of the research community, which consisted of (5) female students who did not participate in the main experiment, for several objectives, including:

1. Establishing order of the procedures of cultural unit and fixing each department's work in all of them.
2. Discovering the sample appropriateness to the tests.
3. Define problems that might be encountered on the way towards exam implementation and educational asset creation and develop ways and methods to resolve them.
4. Determine the times and days that you will be offering classes and have your students attend classes.

Pretests

Following the completion of two introductory educational units (**) on the skill of the front hand jump on the jumping table device, which included an explanation of the skill with the use of some pictures and drawings, the experimental and control groups were given pre-tests on (1/12/2023). After practicing on the laptop, the study sample put it to the test.

Following the completion of the lesson, the sample took pre-tests to gauge their technical proficiency and skill accuracy.

Coursework for instruction

It is important to define the relationship between educational models, which seek to accomplish certain goals, and methods for teaching artistic gymnastics to female students before implementing the curriculum.

Use of kinetic intelligence in the classroom has many purposes, one of which is to foster a stronger bond between instructor and student, which in turn helps students grow and become more self-reliant. Consistency, accuracy, reaction, and control are the desired outcomes. Our go-to strategy for the lesson's warm-up and concentrated instruction is to use

The researcher coordinated the efforts of the experimental and control groups before beginning the procedures:

A total of fifty female students made up the research sample. Of these, twenty-five were randomly assigned to the experimental group and twenty-five to the control group.

- **The control group:** carried out four units of instruction in accordance with the course outline for the third year of the University of Karbala's Physical Education and Sports Science Faculties.
- **Experimental group:** The students in the control group learnt how to use a jumping table to practice front-hand jumps; they also developed and used the electronic equipment (a laptop) and the DATA SHOW screen to master this new skill.

There were four 90-minute educational units in the curriculum, with one unit per week, with the goals of introducing new learning environments, shortening the learning time, and igniting the students' interest.

The following instructional modules based on kinetic intelligence were implemented with the experimental group:

Experimental group

The educational program began on 1/16/2023, which is Sunday, and ended on 4/28/2023, on Sunday. It included appropriate exercises for the scientific units to learn the researched skill and special assignments using the (kinesthetic intelligence) method, in a way that is consistent with the students' inclinations, abilities, desires, and capabilities, and to improve their sensory-motor perception. I was keen to the researcher ensured that there was no difference between the groups in all parts of the educational units, as it reached (4) educational units.

Performance evaluation of the investigated skill

The researcher designed a "performance evaluation" form that includes giving a score for each part of the skill (preparatory, main, final) and presented it to a group of experts and specialists** in the sport of gymnastics to demonstrate its suitability in measuring and determining the skill being investigated for study and research, and after collecting the forms, translating the data, and analyzing Expert opinions: The results showed that there was complete agreement on the validity of the form (100%) after making some minor modifications to it. After that, the evaluation of each student's performance was used and relied upon* of each student's performance when performing skills on artistic gymnastics equipment, which is concerned with study and research.

Posttests

The researcher administered the post-test to all participants in the basic experiment, including those in the experimental and control groups, on May 3, 2023, following the same procedures and guidelines as the pre-test. This was done to assess the skill under investigation and to prepare the data for processing. The educational program consisted of four units. With respect to statistics.

Statistical methods

- Using the statistical package (SPSS)

The results are presented, analyzed and discussed

Taking the findings and presenting them to the study teams for discussion

The researcher was able to receive the raw test scores after finishing the study processes, which comprised the stages for administering all tests (pre- and post-tests). To accomplish the second objective of the study, which is to determine the impact of a kinetic intelligence-based instructional program on motor perception and the acquisition of artistic gymnastics floor movement skills (specifically, the forward and backward hand jump), the researcher aimed to compare pre- and post-test scores between the experimental and control groups of female students.

Providing, evaluating, and debating the findings of the pre- and post-test teams for the control group's explored abilities

Table (2) below represents the uneven servicing and discrepancies through the researcher's statistical analysis from which the pre- and post-measurements of the control group are taken. The researcher intended to evaluate whether the variances are distinguished via taking the arithmetic mean and the standard deviation of the data for all the variables (psychological dimension, forward turning in the upper body, backside jumping) and then, using two-sample equal and connected T-test, draw conclusions regarding the impact.

Table 2: Displays the change from the control group's pre- to post-test scores on the competencies under investigation.

Significance Level	T-values	Standard Error	Difference of Means	Deviations	Means	Test	Variables
0.00	5.77	0.36	2.07	1.16	4.73	after me	Jump. Front
				1.29	2.67	before me	
0.00	9.91	0.26	2.53	0.94	4.20	after me	Jump. background
				0.72	1.67	before me	
0.04	2.25	0.80	1.80	2.85	11.13	after me	Imagine. Visual
				1.84	9.33	before me	
0.02	2.65	0.80	2.13	2.23	11.67	after me	Imagine. Visual
				2.17	9.53	before me	
0.10	1.75	0.65	1.13	3.00	11.47	after me	Imagine. Feel. kinetic
				1.59	10.33	before me	
0.01	3.22	0.48	1.53	1.84	11.33	after me	Imagine. declamatory
				2.65	9.80	before me	

Based on the data in Table (2), it is evident that the control group members' pre- and post-measurements for the variables (mental perception, the jump of the front hands on the floor movements mat, and the jump of the back hands on the floor movements mat) differ significantly, and that this disparity is statistically significant. We found that the forward hand jump variable on the floor movements mat had a calculated value of 5.77 between the pre- and post-measurements, which is greater than its tabulated value of 14.2, at a significance level of 05.0 and a degree of freedom, when we used the (T) test for correlated samples. In the case of the backhand jump on the ground movement mat, the computed value of (T) was 9.91, which is higher than the tabulated value; in the case of visual perception, the computed value of (T) was 2.25, which is higher than the tabulated value at the significance level of (05.0) and degree of freedom; and in the case of auditory perception, the computed value of (T) was 2.65, which is higher than the tabular value at the significance level of (05.0) and degree of freedom. As a result, we know that the group members' pre- and post-test mathematical means differ significantly. This may be a female policeman. Researcher's statement indicates that the way a sport gymnast educates artistic athletes about the basic movements on floorboards decides how well the latter pupils will be able master the skills in question.The researcher attributes this development to the members of the control group that adopted the teaching method approved by the subject teacher to the appropriate repetitions that accompanied the educational units, as well as On performing continuous exercises, taking into account their suitability to the abilities and capabilities of the students, as well as the gradation in the difficulty level of the movements and skills, which ensures performance by everyone, and this is consistent with what was indicated by (Najah Mahdi Shalash and Akram Muhammad, 2000) that "practice and exerting effort through training and continuous repetitions are necessary in The process of education and acquisition, and training is an essential factor in the process of the individual interacting with the skill, controlling his movements, and achieving coordination between the movements that make up the skill in proper sequential performance at an appropriate time, and it increases the learning, development and mastery of the skill" (1)

Results from the experimental group's pre- and post-tests on the examined abilities, with commentary on the findings

The investigator was hitting statistics that were processing the data and then extracting arithmetic means, the standard deviations, for the variables under study and research, that include such statements as (scores of achievement, the height of the back hand when the latter is on the carpet for the floor movements, the height of the front hand when the latter is on the carpet), so that the researcher may reveal the differences between the pre and Subsurface flows Okay, that's all. The study was ended with the researcher applying the T-test for correlated samples to find the significance of the discrepancies and if they were really caused by the differences or by chance, as seen in Table (3).

Table 3: Shows the difference between the pre- and post-measurements of the experimental group members for the investigated skills.

Significance Level	T-values	Standard Error	Difference of Means	Deviations	Means		Variables
0.00	11.91	0.36	4.27	0.94	6.80	after me	Jump. Front
				0.83	2.53	before me	
0.00	13.51	0.32	4.27	0.74	5.87	after me	Jump. Background
				0.91	1.60	before me	
0.00	13.43	0.54	7.20	1.35	16.33	after me	Imagine. Visual
				1.68	9.13	before me	
0.00	7.63	0.80	6.13	1.49	15.73	after me	Imagine. Visual
				2.41	9.60	before me	
0.00	6.20	0.86	5.33	1.81	15.47	after me	Imagine. Feel. kinetic
				2.59	10.13	before me	
0.00	10.85	0.52	5.67	1.55	15.40	after me	Imagine. declamatory
				1.49	9.73	before me	
				3.20	15.13	before me	

The gap between both study groups is clear in Table (3): before and after filling out the card, experimental group members showed significant difference in all variables (mental perception manifestations, jumps with front-hand floor movement, jumps with back-hand floor movement) that were under consideration. The analysis of the (T) test for correlated samples led to the conclusion that the calculated value jumps from the forward hand jump during the floor movements at the mat was (11.91), which exceeds the tabulated value of (14.2) at the levels of significance (05.0) and degrees of freedom (14). Therefore, as regards the backhand jump variable the obtained value equals (13.95) which is more than its tabular value. This inference shows a high possibility that there are disagreements and variations in the mathematical settings among the different subjects you had to handle and those can be explained by this test. This gives some clues that the agricultural education is going to be a strong determinant in the students' acquisition of the basic abilities. Performing artistic gymnastics on the hubl. The study utilized multimodal training platform for the education Units that consist of workout with all the muscles. These are several activities in which the participants move the body from front and back in a fast or slow way respectively, which are regulated by time, distance and repetition. There are also movements that are done for the torso, legs and head. Additionally, the plan included the hand out of a pamphlet and a monitor. The result of our trial was that the experimental group mastered and acquired talent by the following (mental visualization exercises, front-and back-surrounding traveling on the floor movements mat). Methods of instruction are valuable and significant because of the impact they have on the three pillars of every successful educational system: the teacher, the learner, and the courses themselves.

Students' responses to all learning requirements through the educational units are the most important effective means of highlighting energies and maintaining the level, which the researcher attributes to their learning and acquisition of the

researched skills. This confirms that the exercises used in the educational units have contributed to students' learning and acquisition of basic skills, such as ground movements. Since there aren't many models in this game at universities, the researcher thinks that showing off one's skills on screen is a great way to stay up with the rapid pace of scientific advancement across all disciplines and to learn using the right model.

Conclusion

The researcher came to several conclusions based on the study's findings, including

1. Designing a curriculum for female pupils that combines motor intelligence with motor visualization to teach them artistic gymnastics techniques such as forward and backward handsprings on a floor mat.
2. Based on the findings, third-stage female gymnasts at the College of Physical Education and Sports Sciences at the University of Karbala are most interested in developing their motor visualization and floor-based jumping abilities via the application of motor intelligence.

Recommendation

1. It is preferable to pay attention to the educational structure that allows the student to learn according to his inclinations, desires and abilities by providing the opportunity to test according to his desire.
2. It is preferable to conduct a similar study for other subjects and stages for students in colleges of physical education and sports sciences.

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