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The effect of the six-dimensional strategy on motor satisfaction and learn passing and shooting skills of handball for students

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Abstract

The utilization of a contemporary teaching method, the six-dimensional approach, and understanding of its effects on the variables under study are what make the research significant. The purpose of the study is to determine how employing the six-dimensional method affects students' acquisition of handling and scoring techniques for handball as well as their motor pleasure. The researcher choose the same study, which includes (30) students from the University of Karbala's second-stage students and a total of (95) students. They were split into two groups, each with fifteen kids.

The two groups had a favourable impact on the research variables, with the experimental group outperforming the control group, according to the research findings. The necessity to employ these kinds of tactics to learn the remaining tasks is one of the researcher's most crucial suggestions.

Keywords: Six-dimensional strategy, learn passing and shooting skills, handball

1. Introduction

Teaching is one of the sciences that researchers in the field of physical education have focused on due to its significance in teaching and acquiring new motor skills by an individual with the least amount of effort possible, as teaching is an important component of learning, and its methods have changed over the years. In light of the data of this era, the role of teachers in this era has changed. The role of the educational institution is no longer limited to the presentation and retrieval of educational content, but instead extends to the development of access, acquisition, and application skills for knowledge as well as the creation of new knowledge. This results from meaningful learning, which can only be accomplished by concentrating on the essential ideas and fundamental principles of the course material.

Strategies, methods and teaching methods have emerged, and among these strategies is the six-dimensional strategy. It is an important strategy in teaching because it provides a climate that enjoys discussion and diversity of points of view. Therefore, this strategy is intended to be used as a means to help students understand educational situations and try to train them to face different problems through its steps. Educational, which depends on the ability of the learner to think from the perspective of constructivist philosophy, it enables learners to adapt emotionally and develop personal qualities to establish fruitful and enjoyable social relations with others so that it is characterized by the ability of the individual to give and adapt to effective productive work and invest energies in a sufficient investment and makes the individual a useful person in his surroundings social.

The student's access to motor satisfaction helps in the development of skillful performance and the success of the learning process, given that the skill and persistence in its performance results from positive thinking, and he is considered the leader to perform this skill in its proper form, rather than being the one who leads to human successes at all levels. I have positive results, and the teaching process whenever it is performed properly, it thus contributes to the success of the education process and thus achieving the goals of the educational process.

Handball is one of the most fortunate sports in investing in modern strategies and applications to achieve the highest levels of development and progress, as it is a game that has priorities of

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interest by most countries of the world. The idea of handball is one of the collective competitive sports that includes a set of different basic skills. Special performance that distinguishes it from other skills.

The utilization of a contemporary teaching technique, the six-dimensional strategy, and understanding its influence on the variables under study are what make the research significant.

1.1 Research Problem

Through perusal and theoretical reading of the researcher being a physical education teacher, he found that there are more advanced learning strategies and that using them allows to overcome some learning problems represented by the increase in the number of students, lack of time, and other things that impede the delivery of the learning process to students to the required extent, and this negatively affects the level of performance, especially if the teacher follows the method or strategy of commands and is able to contain all the participants or observe all of them at the time during the performance, the student's access to motor satisfaction and the extent to which the learner is given the opportunity to realize his thinking and awareness of it and correct his thinking requires research in the best methods and modern strategies that help students to learn better and measured with the educational process and positive participation that leads to mastering skills in sports, including handball.

From this vantage point, the notion for carrying out this research was born, and the issue under investigation was named as follows: How much of an effect does the six-dimensional technique have on helping children learn how to play handball, develop their motor skills, and score goals?

1.2 Research objective

1. Determining how the six-dimensional method affects students' acquisition of handball and scoring skills as well as their motor pleasure.
2. To determine which post-test findings significantly differed between the experimental and control study groups.

1.3 Research hypotheses

1. There are statistically significant differences between the pre and post measurement of the experimental and control groups in motor satisfaction and learning passing and shooting skills in handball for students.
2. There are statistically significant differences in the results of the post-measurements of the experimental and control groups in motor satisfaction and learning passing and shooting skills in handball for students and in favor of the experimental group.

Table 3: Shows the equivalence of the two research groups in motor satisfaction tests and learning some handball skills

Variables	Control group		Experimental group		Calculated t-value	Sig level	Sig type
	Mean	Std. Deviation	Mean	Std. Deviation			
Motor satisfaction	0.536	1.26	3.44	92.2	3.34	92.4	Non sig
Passing	0.501	0.678	.50687	2.4348	.48305	2.333	Non sig
Shooting	0.857	0.181	0.827	2.7273	0.838	2.681	Non sig

2.4 Means and tools

2.4.1 Means to help: Sources - Tests.

2.4.2 Tools

A medical scale - 10 handballs - a whistle - a camera - a manual stopwatch (2) - a scientific calculator - educational posters - illustrative pictures.

1.4 Research field

Human field: Students at the second level at the University of Kerbala's College of Physical Education and Sports Sciences for the academic year (2022-2023).

Time field: The period from (4/11/2022) to 15/2/2023).

Spatial field: The University of Kerbala's College of Physical Education and Sports Sciences's outdoor handball court.

2. Research Methodology and field procedures

2.1 Research Methodology

Due to the experimental approach's fit for the nature and goals of this investigation, the researcher utilised two experimental and control groups with pre-post testing.

2.2 Research community and sample

The researcher choose the same study, which includes (30) students from the University of Karbala's second-stage students and a total of (95) students. They were split into two groups, each with fifteen pupils (35) and a percentage of 31.57%. As stated in Table 1, he selected ten students to represent the participants in the exploratory experiment.

Table 1: Shows the characterization of the sample

N	Group	The number of students in each group	The teaching method used for each group
1	Experimental	15	six-dimensional strategy
2	Control	15	Teaching method used

2.3 The homogeneity of the sample and the equivalence of the two research groups

2.3.1 Homogeneity of the sample

For the purpose of homogenization, the researcher used the coefficient of variation, as shown in Table 2.

Table 2: Shows the mean, standard deviation, and coefficient of variation in the study variables

Variables	Measuring unit	Mean	Std. Deviation	Difference coefficient
Length	Cm	171.5	6.29	0.03
Weight	Kg	68.18	7.61	0.51

The sample is homogeneous because the value of the coefficient of variation is less than 30%.

2.3.2 Equivalence of the two research groups

The researcher used the (t) test for the purpose of finding equivalence between the two groups. Table 3 shows that.

2.5 Tests used in the research

2.5.1 Motor satisfaction scale test (Jawad Ahmed & Ather, 2014) [3]

The scale employed by (Jawad and Kazem) which has thirty items and five alternative answers, was used by the researcher. The scale's greatest point was 150 degrees, while its lowest point was 30 degrees.

2.5.2 Determine skill tests

First, the test's name: Evaluation of the technical performance of whip handling from above the shoulder level in accordance with the skill's three portions and obvious structural elements.

The aim of the test

Evaluation of the technical performance of whip passing from above the shoulder level, according to the apparent structure of the skill and its three sections (preparatory, main, and final section).

Tools used

- A legal handball court.
- (3) Legal handballs.

Pre-prepared performance appraisal form.
Sony camcorder.

Performance specifications: The tested student stands in front of a line drawn on the ground, 3 meters away from the wall, and with the word (start), the tested student handles the ball from shoulder level on the wall for three consecutive attempts.

Registration: Three assessors evaluate the three attempts of each student as follows.

1. Preparatory section (4) degrees.
2. The main section (4) degrees.
3. Concluding section (2) two marks.

Note that the total score for the evaluation is (10) degrees, taken by taking the arithmetic mean of the evaluators (after the best score for each evaluator is calculated and taken).

Second / the name of the test: The technical performance of shooting from a high jump: (Al-Dulaimi, Khaleda Abd Zaid, 2006, p. 45) [4].

- **The objective of the selection:** Evaluating the technical performance of shooting from a high jump.
- **Tools used**
- A legal handball court and (3) legal handballs.
- Pre-prepared calendar form.
- Performance specifications: The test student performs shooting by jumping high from the area specified by (10) meters, trying to get the ball into the goal.

Registration

The three attempts are evaluated by 3 evaluators, according to the chosen division, as follows.

1. Preparatory section (3) degrees.
2. The main section (6) degrees.
3. The concluding section (1) degree.

Note that the total score for the evaluation is (10) degrees, taken by taking the arithmetic mean of the evaluators (after the best score for each evaluator is calculated and taken).

2.6. Exploratory Experience

The number of the experiment was 10 students, and the researcher conducted the exploratory experiment on them on (11/11/2022) for the purpose

- Knowing what are the difficult implementation issues that they may face.
- Identify the time allotted for the tests.
- Ensure the scientific basis for the tests used.

2.7. Scientific foundations of tests

2.7.1 Validity: The tests were presented to the experts, and thus the researcher used the validity of the content.

2.7.2 Reliability: The researcher used the test method and re-applied the test on the same secrets of the exploratory experiment after 7 days of the first test.

2.7.3 Objectivity: The researcher used the simple correlation coefficient between the degrees of the three evaluators.

Table 4: Shows reliability and objectivity coefficient

N	Tests	Measuring unit	Reliability coefficient	Objective coefficient
1	Passing	Degree	0.97	0.95
2	Shooting	Degree	0.98	0.87

2.8. Field research procedures

2.8.1. Pre-tests

Pre-tests for the student variables motor satisfaction, handling skills, and handball scoring were carried out on Wednesday, November 30, 2022 on the outdoor handball court at the College of Physical Education and Sports Sciences / University of Karbala.

2.8.2. The general framework for implementing the teaching strategy

For the experimental group, eight educational units were created using a six-dimensional strategy to teach some fundamental football techniques. The first educational unit was implemented on Thursday, or 1/12/2022, and was finished on Wednesday, or 28/12/2022. For each ability, there were four educational units dispersed among these units, with two educational units provided each week. Each educational unit had a duration of 90 minutes.

As the educational section: It includes three stages, namely (prediction, discussion and interpretation)

As the researcher carried out the prediction and discussion stages after explaining the skill by the teacher and presenting a model for performing this skill, after which a set of questions are given by the teacher about the skill and the students are asked to predict the answer to it, as the students are divided into groups of 3-4 students and the teacher asks the students By discussing the skill that they were asked previously to predict the answer to its solution.

In the interpretation stage, each group is asked to present the solutions that have been reached and collected in order to be interpreted and written in front of them, and to listen to each solution or opinion so that they have in their minds an initial picture of the skill that helps them store information and benefit from it in practical application.

The teaching aids (presentation methods) were adopted for the experimental group members, as these means were (educational posters, displaying pictures) in the first and second phases of the strategy.

Applied Section: It includes

The fourth stage (observation): As after prediction, discussion and interpretation, the student performs the skill from easy to difficult because the student took an idea of this skill theoretically and the student became aware of this skill. As the student will perform a set of exercises with appropriate repetitions and a specific and fixed time in the educational unit.

The fifth stage (discussion): Is a discussion of what was previously performed and giving feedback on how to perform.

The sixth stage (interpretation): After the discussion, they are given a set of exercises to explain their concepts about performance and reach the correct performance.

2.8.3 Post-tests: On Thursday, December 29, 2022, the researcher completed the post-tests under the identical

circumstances as the pre-tests.

2.9. Statistical means

1. Arithmetic mean.
2. Std. Deviation.
3. Coefficient of difference.
4. Simple Correlation Coefficient (Pearson).
5. T for correlated samples.
6. T for independent samples.

3. Presentation, analysis and discussion of results

3.1. Presentation and analysis of the results of pre and post tests for the control group

Table 5: It shows the means, deviations, and the value of (t) calculated between the pre and post-tests of the control group and their analysis

Variables	Pre		Post		Calculated t value	Sig level	Sig type
	Mean	Std. Deviation	Mean	Std. Deviation			
Motor satisfaction	92.4	3.34	95.8	3.33	3.77	0.000	Sig
Passing	2.333	0.483	5.5455	.50965	29.784	0.000	Sig
Shooting	2.6818	0.838	5.8182	.66450	13.073	0.000	Sig

At the level of significance (0.05) and degree of freedom (14), the value of (t) was (2.14).

3.2. Presentation and analysis of the results of the pre and post-tests of the experimental group in the results of the tests under study

Table 6: Shows the means, standard deviations, and the value of (t) calculated between the pre and post-tests of the experimental group and their analysis

Variables	Pre- Experimental		Post- Experimental		Calculated t value	Sig level	Sig type
	Mean	Std. Deviation	Mean	Std. Deviation			
Motor satisfaction	92.2	3.44	99.6	3.54	8.44	0.000	Sig
Passing	2.4348	0.5068	7.8182	.50108	34.559	0.000	Sig
Shooting	2.7273	0.827	8.1364	.71016	24.077	0.000	Sig

3.3. Discussing the pre-post results

The control group: The researcher attributes the development that took place in this group to the appropriate method of teaching the subject, to the clear commitment of the students, and to the appropriate repetition of the exercises, which served the members of this group, and thus their level developed clearly through the results.

Experimental group: The most important one of the reasons for the development of this group is the use of the six-dimensional strategy.

The researcher believes that the six-dimensional strategy has provided an opportunity for students to see the skill written, drawn and explained in all its stages in its proper conditions, which helped them to absorb the skills under discussion in addition to continuous evaluation and providing feedback during the learning stage as well as discovering and correcting errors, and this in turn leads to progress and improvement in skills

This is what (Afaf Abdel-Karim) indicated. The six-dimensional strategy, in order for it to work well and to show this at the level of students, must correct errors after each attempt and not repeat the error so that it is not fixed, and this

matter helped in developing And improving the motor satisfaction of the students compared to the control group, because the student here will see the parts of the skill in written and visual forms, in addition to the practical application, which is a positive thing that increased the learning of these skills among the students.

The researcher also attributes the significant differences between the pre and post-tests of the motor satisfaction scale to the effectiveness of the strategy used, as the students' possession of motor satisfaction in the experimental research group increased the fixation of confidence in themselves and their ability to find theoretical information related to skills through their interaction with the nature of the subject and the teacher who teaches it, and thus increased his focus and positive thinking in the lesson. "If he chooses to think positively, he can remove many unwanted feelings that may hinder him from achieving the best for himself". And that experiences of success are attained by the individual who performs actions that others are unable to do. For this reason, the levels of thinking among individuals are affected by their nature, in addition to that, the motor satisfaction of students is closely related to success in every field of life. (Ibrahim al-Feki).

3.4. Displaying and analyzing the results of post-tests for the experimental and control groups

Table 7: Shows the arithmetic means, standard deviations, and the value of (t) calculated between the post-tests for the control and experimental groups and their analysis

Variables	Pre- control		Post- Experimental		Calculated t value	Sig level	Sig type
	Mean	Std. Deviation	Mean	Std. Deviation			
Motor satisfaction	95.8	3.33	99.6	3.54	6.21	0.000	Sig
Passing	5.5455	.50965	7.8182	.50108	12.864	0.000	Sig
Shooting	5.8182	.66450	8.1364	.71016	11.180	0.000	Sig

Table 7 shows the superiority of the experimental group over the control group.

4. Discussing the results of post-tests for the two experimental groups

The experimental group's advantage over the control group was due to the utilisation of the six-dimensional method and its function in learning the fundamental handball skills that were being taught. The six-dimensional strategy prioritised making the student the focus of the educational process, assigning him some roles and tasks to practice the learning process on his own, and allocating lesson time optimally for learning, which is supported by (Abdullah Al-Musawi), who states that "caring for the learner and making him a focus" increased their excitement and suspense in the lesson when learning. Respect for his thoughts and talents and surrounding him with love, acceptance, and encouragement are essential components of the educational process and a hub of activity. (Abdullah Hassan Al-Musawi, 2005, p. 119) ^[6].

The researcher also believes that the six-dimensional strategy has helped students to involve more than one sense in learning, which increases the interaction between the student and the material (skills), which has led to the enrichment of experiences, ideas and information, their diversity and stability in the minds of students. One of the problems that they encounter by using dialogue, discussion and positive participation is to stimulate the motivation of the learners in order to reach the correct performance of the basic skills of handball under study. Contrary to the method used, which relied on explanation, presentation, and performance of the skill without the participation of the learner, but rather the role of a listener and an imitator, which leads to weakness in achieving results and performance, and this is confirmed by (Zainab Muhammad Bayoumi), "as he enhanced the student's involvement in generating ideas and discussing them, which opened the way for him to deep understanding. Thus, it increased the improvement of his level of performance and also contributed to increasing the previous knowledge of students in the cognitive structure, as by increasing it, their ability to deal with new experiences and situations that they face will increase (Zaghloul, Mohamed Saad, 2001, p. 96) ^[8]. The use of the six-dimensional strategy and the significance of this strategy, which lies in the fact that it provides a comprehensive picture of the subject to be learned and compiles the most information possible on one sheet, which facilitates remembering data and information, to remember the things engraved in the minds, and develops the skills learned in artistic creativity to clarify data and information Components of the topic, as it reduces the words, are also important. (Mansi, Hussein, 2010, p. 65) ^[2].

Team and cooperative work and giving responsibility to students as well as suspense and excitement during the lesson, and this in turn improves the dimensions of learning among students by increasing social interaction among them, bearing responsibility, challenge, happiness and other dimensions.

In addition, the prepared educational units are based on modern scientific foundations that use methods and methods that are in line with modern trends in the teaching process and help in education. The acquisition process depends on perception, attention, advice, readiness, and motives, and the acquisition process is a process linked to the teaching method that includes receiving and recording concepts (Abdel-Latif, Zainab Muhammad Bayoumi, 2002, p. 276) ^[5].

In addition, the application of the main part of the educational unit, which is related to the exercises, which came with

appropriate times and quality for the students' levels and ages in terms of repetitions, and taking into account the gradation of the exercises from easy to difficult, because the nature of performing this activity requires physical and mental readiness and high compatibility due to its difficulty this is what was focused on in the exercises in sequence in learning the steps of this activity and its performance with high concentration, in addition to diversifying the use of tools in learning and adding an element of suspense and excitement, compared to the control group, as "the stage of learning skills and activities, whether with or without the ball, is one of the most difficult stages of teaching the motor aspects of the game for the beginner or the young person, and its difficulty is due to the lack of competition during the education period, as well as to its lack of some interesting elements. (Abbas, Emad El-Din, and Mahmoud, Medhat; 2007; p. 52) ^[7].

5. Conclusions and Recommendations

5.1. Conclusions

4. The teaching method and the new strategy used had a positive impact on the researched variables.
5. The superiority of the students who used (the six-dimensional strategy) over the students who learned according to the teacher's style in the variables studied.

5.2. Recommendations

1. Emphasizing the use of the six-dimensional strategy in learning the rest of the athletics activities because of their good results.
2. The need to pay attention to various educational exercises, methods and tools that are appropriate to the type of activity.

6. References

1. Ibrahim Al-Feki: The power of self-control, Cairo, Dr. Ibrahim al-Feki companies.
2. Mansi, Hussein. Instructional Design, Jordan, Amman, Dar Al-Kindi; c2010
3. Jawad Ahmed, Amna Fadel Kazem, Rewaa Allawi. Motor satisfaction and its relationship to the accuracy of the performance of handling and shooting skills in handball, Journal of Physical Education Sciences. 2014;7:4.
4. Al-Dulaimi, Khaleda Abd Zaid. The effect of different times of feedback on learning the shooting skill from jumping high in handball, master's thesis, University of Babylon: College of Sports Soil; c2006.
5. Abdel-Latif, Zainab Muhammad Bayoumi. The effectiveness of using the Karen model in the acquisition of grammatical concepts by second-grade middle school students, master's thesis, Egypt, Menoufia University; c2002.
6. Al-Musawi, Abdullah Hassan. The Guide to Practical Education, Irbid, The World of Modern Books; c2005.
7. Abbas, Emad El-Din. Medhat Mahmoud: Attack Applications in Handball - Learning Training, 1st Edition (Cairo, Al-Kitab Center for Publishing); c2007.
8. Zaghloul, Mohamed Saad. Education Technology and Methods in Physical Education, Cairo, Al-Kitab Center for Publishing and Distribution; c2001.
9. Nayef Fatimi. Classroom Teaching Models, 2nd Edition, Amman, Dar Al-Shorouk for Publishing and Distribution; c1998.