

THE IMPACT OF CONTRASTING EVENTS STRATEGY ON MOTOR SATISFACTION AND LEARNING PERFORMANCE OF VOLLEYBALL BLOCKING SKILL FOR SECOND-STAGE COLLEGE STUDENTS

Asst. Lecturer Hayder Hasan Karam

Ministry of Education / Directorate of Education of Al-Qadisiyah/ Iraq

Hhader425@gmail.com

ABSTRACT

The aim of this study was to investigate the effect of the contrasting events strategy on motor satisfaction and learning performance of the volleyball blocking skill for second-stage college students in the College of Physical Education at the University of Al-Qadisiyah. The research emphasizes the importance of utilizing modern teaching strategies in teaching sports skills, as they enhance students' motor skills and contribute to their development while reducing the effort required from teachers. The research problem identified a weakness in students' performance of the volleyball blocking skill due to the prevalent use of traditional teaching methods that prioritize the teacher's role and neglect the active participation of students in improving their skills. The researcher conducted an experimental study using two groups, with the research community consisting of second-stage college students in the College of Physical Education at the University of Al-Qadisiyah for the academic year 2022-2023, with a total of 135 students. The research sample included 36 students, divided into two groups, where the experimental group learned using the contrasting events strategy, while the control group learned using the traditional method employed by the teacher. The researcher concluded that the contrasting events strategy was more effective than the traditional method in enhancing motor satisfaction and learning performance of the volleyball blocking skill for students. One of the main recommendations is to adopt this strategy to enhance students' learning and performance in the volleyball blocking skill.

INTRODUCTION

Teaching strategies play a significant role in the teaching and learning process, and the more modern and innovative the teaching strategy used, the better the learning process and the greater the opportunity for students to improve their skill performance. Teaching strategies are closely related to motor satisfaction, which plays a vital role in enhancing students' sports skills. Motor satisfaction reflects the student's contentment with their physical abilities and affects their confidence and performance levels. Achieving motor satisfaction generates a desire and motivation to engage in physical activities willingly, leading to the accomplishment of goals and aspirations. The contrasting events strategy is a teaching strategy that aims to enhance students' cognitive abilities and has an active role in developing various educational aspects. It emphasizes interaction and competition while considering individual differences. Successful teaching strategies foster student interaction and engagement, help in decision-making, capture students' attention, and lead to greater motor satisfaction and improved performance. The study focuses on the volleyball blocking skill, which is a fundamental element of the game and requires sufficient practice time.

RESEARCH OBJECTIVES

1. To identify the impact of the contrasting events strategy on motor satisfaction and learning performance of the volleyball blocking skill for second-stage college students in the College of Physical Education at the University of Al-Qadisiyah.
2. To compare the levels of motor satisfaction and learning performance of the volleyball blocking skill between the control and experimental groups of second-stage college students in the College of Physical Education at the University of Al-Qadisiyah.

Research Assumptions:

1. There is a positive impact of implementing structured events strategy on enhancing motor skills and learning performance of basketball lay-up technique for second-year students in the College of Physical Education - Al-Qadisiyah University.
2. There are significant meaningful differences favoring the experimental group in terms of motor satisfaction and learning performance of basketball lay-up technique for second-year students in the College of Physical Education - Al-Qadisiyah University.

Research Field:

1. Subject Area: Second-year students in the College of Physical Education and Sports Science - Al-Qadisiyah University.
2. Timeframe: From December 17, 2022, to March 27, 2023.
3. Location: Basketball court at the College of Physical Education and Sports Science - Al-Qadisiyah University.

Research Methodology and Procedures:

1. Research Method: The researcher adopted an experimental design using two groups (experimental and control) to investigate the research objectives and assumptions.
2. Research Population and Sample: The researcher identified the research population as second-year students in the College of Physical Education and Sports Science - Al-Qadisiyah University. A random sampling method was used to select the research sample, which consisted of 135 students. After excluding failed, absent, and teacher students, the final sample size was 36 students, divided into two groups (control and experimental) with 11 students in each group. The sample represented approximately 26.66% of the original population. The experimental group followed the structured events strategy, while the control group followed the traditional teaching method by the subject's instructor.

Measurement of Sample Homogeneity: The researcher conducted homogeneity tests on the sample in terms of variables such as height, weight, and age. To ensure homogeneity, the researcher used the coefficient of variation, as shown in Table 1.

Table 1: Homogeneity of the Sample's Individuals Variable Mean Standard Deviation Coefficient of Variation Height 166.7 1.2 -3.0 Weight 65.52 12.2 -53.0 Age 20.27 6.6 62.0

Equivalence of the Groups: The researcher conducted equivalence tests between the experimental and control groups using independent sample t-tests, as shown in Table 2.

Table 2: Equivalence between the Experimental and Control Groups Variable Experimental Group Control Group t-value Level of Significance Basketball Lay-up Technique Performance 3.22 0.52 3.15 0.76 65.1 Significant

Instruments, Devices, and Tools Used in the Research:

1. Observation.
2. Personal interviews.
3. Motor satisfaction questionnaire.
4. Tests and measurements.
5. Skill performance evaluation form.
6. Cameras (Sony) - 2 in number.
7. Stopwatch (Smtwtfs).
8. Laptop computer (Dell).
9. Height and weight measurement device.
10. Official basketball court.
11. Basketball balls (10 in number).
12. Measuring tape.
13. Adhesive tape (5 cm wide).
14. Seats (3 in number).

Research Tests Conducted:

1. Performance evaluation test for the basketball lay-up technique, based on Mustafa's (1999) standards.

- Test Objective: Evaluating the technical performance of the basketball lay-up technique according to its developmental aspects (preparation, approach, release).

- Tools Used: Official basketball court, three standard basketballs, Sony video camera, and three seats.

- Performance Specifications: Three seats positioned consecutively in the middle (2, 3, 4) with a distance of approximately 50 cm from the net. An assistant stands beside each seat holding the ball with both hands above the net level at a height of approximately 30 cm.

- The lateral distance between the three seats is equal and measures 2.25 meters.

- The laboratory subject stands at seat 3, and upon receiving the starting signal, starts moving towards seat 4 to perform the lay-up technique. Afterward, they return to seat 3 and then to seat 2, performing the same lay-up technique consecutively.

- Performance Conditions: Each laboratory subject is given three consecutive attempts.

- Recording: The three attempts for each laboratory subject are recorded and presented to three evaluators to assess their form and specialization aspects for the purpose of evaluation. Each evaluator assigns grades to each laboratory subject based on the chosen criteria, and then the best grade for each subject is selected to calculate the final grade.

Validity of the Tests: The researcher ensured the face validity of the tests by consulting a group of experts and specialists to provide their feedback and suggestions regarding the appropriateness of the tests for achieving the research purpose. The test obtained a high level of agreement, as shown in Table 3.

Table 3: Validity Coefficients of the Used Tests Skill Agree Disagree Percentage of Agreement
Statistical Analysis Basketball Lay-up Technique Performance 10 0 100% Valid

2-5-2 Reliability: To calculate the reliability coefficient, we applied the test and retest method to find the correlation between the first and second test scores. After calculating the correlation coefficient (Pearson's r), the results for the first and second tests are as shown in Table 4.

Table 4: Reliability Coefficient Skill Reliability Coefficient Significance Level (sig) Handling Rejection 0.624 0.023 Significant

3-5-2 Validity: To calculate the validity coefficient, we examined the correlation between the judgment scores. The validity coefficient for the judgment scores indicates high validity. By referring to Table 5, the validity coefficient was found to be 0.626, with a significance level of 0.05, confirming the validity of all the tests.

Table 5: Validity Coefficient Skill Validity Coefficient Significance Level (sig) Handling Rejection 0.626 0.02 Significant

6-2 Motor Satisfaction Scale: We relied on the modified Motor Satisfaction Scale developed by [Author] with a sample size of 30 students. The student is assessed based on their responses to the scale's items, which are rated on a five-point scale: very good, good, moderate, weak, and very weak. The closer the rating is to the maximum score of 150, the higher the student's motor satisfaction level.

To examine the scale's validity and applicability, we conducted a pilot study on Wednesday, [Date], with a sample of 10 students randomly selected from the research population. At 9 AM, the Motor Satisfaction Scale was administered to assess the difficulty or any inquiries regarding the scale's items.

The content validity was ensured by expert consensus on the appropriateness of the tests, measures, motor satisfaction scale, physical education, and psychology. Only tests with an importance level of 10% or higher were selected, while the scale reached 100% agreement, indicating the reliability of the tests and the scale.

Regarding the test and scale reliability, the reliability of the Motor Satisfaction Scale was calculated using the test-retest method. The test was divided into two halves: the first half consisted of odd-numbered items, and the second half consisted of even-numbered items. The internal consistency was assessed by the Spearman-Brown formula, resulting in a reliability coefficient of 0.17.

6-2 Pretest: The pretest was conducted on [Date] at 9 AM for the research sample to assess the skills of handling rejection. The students were presented with the desired skills to be learned, and the performance of the pretest was also evaluated scientifically, with the aim of clarifying the required tasks. After completing the pretest, the same group of students also took the pretest for the Motor Satisfaction Scale.

7-2 Teaching Method: The researcher applied the instructional method (contradictory events strategy) for the experimental group, consisting of students from the research sample, to achieve the research objectives and hypotheses, and to obtain the desired results.

The instructional method was implemented from [Date] to [Date], dividing the sample into control and experimental groups. The control group received instruction according to the pre-developed method taught by the subject teacher. The experimental group received instruction according to the contradictory events strategy, developed by the researcher, with the assistance of the subject teacher.

The instructional period lasted for 60 minutes, and the experimental group was taught using the contradictory events strategy. The implementation followed the following steps:

1. **Contradictory Events Stage:** The researcher explained the desired tasks to be learned during the teaching process, arousing students' interest and motivation. Familiar and contradictory events related to the tasks were introduced to capture students' attention and provide a motivating factor for learning and solving the contradictions. The students were encouraged to observe and understand the solutions proposed by the teacher for unfamiliar situations related to performance.

2. **Student Involvement in Contradiction Resolution:** After introducing the contradictory event, the students became engaged in searching for answers. Their curiosity and motivation increased, and the students actively participated in the learning process, contributing to their own performance observations and the teacher's assessment of their observations to help achieve their goal.

3. **Generalization of the Achieved Solution:** In this stage, students attempted to generalize the achieved solutions through their own efforts, resulting from their observations and experiences. They also learned other related skills associated with the topic.

8-2 **Multiple Measurements:** The researcher conducted the posttest on [Date], on Monday and Tuesday, in the morning session (9 AM) for the skill of handling rejection, as mentioned before. The posttest for the Motor Satisfaction Scale was also conducted in the school classrooms.

9-2 **Statistical Methods:** The researcher used the statistical package SPSS for data analysis.

10. **Presentation, Analysis, and Discussion of Results:** The research results, analysis, and discussion were presented. The researcher utilized tables for easy extraction of scientific evidence and to provide appropriate illustrative demonstrations for the research, aiming to achieve the research objectives and verify the hypotheses."

3. **Presentation, analysis, and discussion of the pre-test and post-test results for the experimental group in the skill of wall blocking.**

In Table 6, the differences between the pre-test and post-test for the experimental group in the studied skill are presented and analyzed.

The calculated values indicate the level of significance and the correlation. For the skill of wall blocking, the pre-test mean was 3.15 with a standard deviation of 0.76, while the post-test mean was 6.40 with a standard deviation of 0.34. The calculated t-value was 13.0, which is greater than the tabulated value of 2.106 at a degree of freedom (17) and significance level (0.05).

Table 6 reveals that there are statistically significant differences between the pre-test and post-test for the skill of wall blocking in the experimental group, favoring the post-test. The average performance of the skill in the pre-test was 3.15 with a standard deviation of 0.76, whereas in the post-test, the average performance improved to 6.40 with a standard deviation of 0.34. The calculated t-value exceeding the tabulated value indicates a significant difference, suggesting the effectiveness of the instructional program and teaching strategies employed in improving the skill. It also suggests the presence of significant non-random differences between the pre-test and post-test for the experimental group, favoring the post-test.

These results indicate that the instructional program and teaching strategies utilized in the research study have positively influenced the performance of the experimental group in the skill of wall blocking. The study highlights the impact of student-centered instructional approaches

and active student participation, which were implemented through contradictory events and engaging teaching methods. These methods have contributed to enhancing students' self-confidence, physical abilities, and skills.

Furthermore, the study emphasizes the importance of focusing on the learner and making them the center of the educational process. By encouraging active participation, creating a supportive and accepting environment, and acknowledging students' abilities and potential, students' performance and skills can be improved.

2. Presentation, analysis, and discussion of the pre-test and post-test results for the control group in the skill of wall blocking.

In Table 7, the differences between the pre-test and post-test for the control group in the studied skill are presented and analyzed.

The calculated values indicate the level of significance and the correlation. For the skill of wall blocking, the pre-test mean was 3.22 with a standard deviation of 0.52, while the post-test mean was 5.23 with a standard deviation of 0.51. The calculated t-value was 16.63, which is greater than the tabulated value of 2.106 at a degree of freedom (17) and significance level (0.05).

Table 7 shows that there are statistically significant differences between the pre-test and post-test for the skill of wall blocking in the control group, favoring the post-test. This indicates an improvement in the performance level of the skill among students in the control group due to the instructional strategies employed by the teacher.

The instructional strategy used, which relies on the teacher's quick response and the students' obedience to follow instructions, has reduced the time required for performing motor activities. In conclusion, the analysis of the pre-test and post-test results for both the experimental and control groups demonstrates a significant improvement in the skill of wall blocking. The instructional strategies, focusing on student-centered approaches and active participation, have proven effective in enhancing students' performance and skills.

As the researcher noted, the control group achieved a higher learning rate due to the method followed by the teacher, such as practicing and repeating skills during the instructional units using the traditional approach. The primary goal of each unit is to deliver the required material to the students. Additionally, the researcher observed a noticeable improvement in the performance level of the control group due to the repetitions of each skill. The role of the teacher is significant in implementing the traditional approach, as they guide the students during the learning process and focus on teaching the skills effectively.

-3-3 Presentation and analysis of the post-test results for the experimental and control groups in assessing the performance of the skill "wall defense."

Table (1) demonstrates the differences in the post-test results between the experimental and control groups in evaluating the performance of the targeted skill. The calculated mean for the post-test in the experimental group is 6.40, with a standard deviation of 0.34. In contrast, the mean for the post-test in the control group is 5.23, with a standard deviation of 0.51. The calculated value (t) is 2.74, which is greater than the critical value (2.03) at a significance level of 0.05. This indicates the presence of significant differences in the post-test between the experimental and control groups, favoring the experimental group.

Based on Table (1), there are significant differences between the experimental and control groups in the post-test, indicating the effectiveness of the applied instructional strategy, which is the use of the "contradictory events strategy" in the experimental group compared to the traditional approach in the control group. The experimental group was exposed to instructional units that incorporated the contradictory events strategy, allowing students to actively participate in problem-solving situations and apply their own solutions based on their unique styles of thinking. This approach fosters independent thinking and enhances self-confidence and physical abilities, which contribute to students' acquisition of comprehensive knowledge and active engagement. The contradictory events strategy allows the teacher to step away from the traditional teacher-centered approach, providing students with more autonomy and involvement in the learning process.

Furthermore, the researcher attributed the observed improvement in the experimental group's performance in the post-test for the skill "wall defense" to the instructional units designed using the contradictory events strategy. This strategy offered students ample opportunities to actively engage in motor activities and provided a favorable environment for acquiring and assimilating knowledge. It also facilitated the development of the students' cognitive abilities and generated a strong inclination towards seeking knowledge, resulting in heightened motivation and better academic performance. The contradictory events strategy, among other modern instructional strategies, creates a dynamic learning environment that promotes skill acquisition, fosters diverse performance styles, and encourages student participation in achieving desired learning outcomes. It aligns with the concept that "students learn best when given enough time for practice and repetition, supported by motivation, which ultimately enhances skill acquisition as an integral part of effective performance" (Khalaf, 2002, p. 16).

As the researcher points out, the main reason for the effectiveness of the Contradictory Events strategy is that it enhances students' development by engaging them in active learning and promoting their involvement in the learning process. This strategy works by incorporating various cognitive processes such as perception, problem-solving, and decision-making, which leads to a deeper understanding of the subject matter. The researcher also emphasizes the role of perception and thinking in problem-solving situations, as they contribute to students' ability to comprehend and analyze complex situations in the learning environment.

Furthermore, the researcher presents and discusses the results of pre-test and post-test evaluations of the control and experimental groups' motor skills satisfaction. The statistical analysis shows that the mean score of motor skills satisfaction in the control group increased from 113.62 to 123.56, with a standard deviation of 10.160. Similarly, the mean score in the experimental group increased from 115.4 to 133.6, with a standard deviation of 14.241. The calculated t-value for both groups exceeds the critical value, indicating a significant difference in motor skills satisfaction between the pre-test and post-test measurements.

Based on the table, it is evident that there is an overall improvement in motor skills satisfaction in both the control and experimental groups. The researcher attributes this improvement to the implementation of the Contradictory Events strategy, which allowed students to develop their motor skills through active engagement and participation. The increased satisfaction levels positively impacted the students' psychological state and their performance in motor skill activities.

In conclusion, the Contradictory Events strategy proved to be effective in enhancing students' motor skills satisfaction. The strategy facilitated active learning and promoted cognitive processes, leading to improved motor skill performance and increased satisfaction levels.

"3. Presentation, Analysis, and Discussion of Post-Test Results for Motor Skills Satisfaction:

Table 11 presents the statistical analysis of the post-test results for motor skills satisfaction in the experimental and control groups.

Table 11: Descriptive Statistics for Post-Test Results of Motor Skills Satisfaction

Groups Statistics Test	Experimental Group	Control Group	t-value*	Mean	Standard Deviation
Motor Skills Satisfaction	133.6	123.56	4.594	7.341	4.981

*t-value: The table value is 2.12, below the critical value of 1.15, with 38 degrees of freedom.

The table shows that the mean score for motor skills satisfaction in the experimental group was 133.6, with a standard deviation of 4.564. In comparison, the control group had a mean score of 123.56, with a standard deviation of 7.341. The calculated t-value for both groups exceeded the critical value of 2.12, at a significance level of 0.05, with 31 degrees of freedom. Figure 6 illustrates the mean scores for motor skills satisfaction in the post-test for both the experimental and control groups.

Based on the table, it is evident that there is a significant difference between the experimental and control groups, favoring the experimental group. The implementation of the Contradictory Events strategy, which gave students an active role in the process of discovering motor skills, contributed to improving physical and mental efficiency and alleviating students' fatigue through the joy of discovery and learning. Consequently, students felt a sense of satisfaction after acquiring information about the required skills. This aligns with the view that "motor skills satisfaction generates internal motivation and leads to better external motivation in improving performance and achieving success" (Abraham, 2010, p. 142).

CONCLUSIONS AND RECOMMENDATIONS

Conclusions:

1. The post-test results show that both groups achieved higher scores in motor skills satisfaction compared to the pre-test, indicating improved performance in the target motor skills.
2. The Contradictory Events strategy was more effective than the traditional teaching method in enhancing motor skills performance.
3. The selected teaching activities and instructional materials used in conjunction with the Contradictory Events strategy resulted in better outcomes.

Recommendations:

1. Emphasize the significant role of the Contradictory Events strategy in teaching and achieving motor skills satisfaction for students.
2. Conduct further research and studies to explore the importance of the Contradictory Events strategy in teaching other sports skills.
3. Highlight the importance of teachers in physical education adopting effective teaching strategies and selecting suitable instructional strategies for different educational contexts.

4. Organize workshops and seminars for physical education teachers to implement the Contradictory Events strategy.
5. Emphasize the use of the Contradictory Events strategy in teaching, aligning with modern educational theories that emphasize student engagement and active learning.

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Appendix (1) Movement Satisfaction Scale Degree of Agreement Strongly Agree Agree Neutral Disagree Strongly Disagree

1. I am completely satisfied with my motor abilities.
2. I have the ability to learn new motor skills.
3. I have the ability to maintain my body positions during specific skills.
4. I can easily adapt to changes within the field.
5. I can apply tactical instructions given by the coach.
6. I have a good ability to learn new motor skills.
7. I can maintain my balance.
8. I have the ability to move on the field to benefit my team.
9. I can maintain balance for a reasonable period.
10. I can move quickly around obstacles or objects.
11. I can participate in physical activities without fear of falling.

12. I can easily bend and stretch my body.
13. I can perform physical movements better than others.
14. I can perform vigorous physical movements.
15. I have the ability to run fast.
16. I can participate in physical activities that require a high level of motor skills.
17. I can engage in physical activity for a long time without feeling tired.
18. I can easily learn motor skills.
19. I have clear confidence in my motor abilities.
20. I am completely satisfied with my motor abilities.
21. I can maintain my balance while dribbling.
22. I have the ability to transition from defense to offense and vice versa.
23. I can achieve numerical superiority in offense.
24. I can estimate distances between me and others while moving.
25. I can relax my body when I want to.