



## Enhancing Volleyball Underhand Service Learning Outcomes Through Modified Media and a Play-Based Approach Among Grade VIII Students at Bina Satria Mulia Private Junior High School

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### Abstract.

#### Background

Results Student learning is still relatively low. Therefore, the implementation of the Service below is one of the most important aspects of volleyball training, because of that the need for methods or strategies that can improve results student learning

#### Objectives

This research aims to find out the improvement in the process of lower service learning outcomes through modification media with a play approach in class VIII students of Bina Satria Mulia Private Junior High School for the 2024/2025 Academic Year.

#### Methods

The research method used is a type of class action research.

#### Results

After the data is collected, an analysis will be carried out: (1) from the test of learning results before using modified media with a play approach (post-test I) obtained by 7 students (17.94%), then learning using modified media with a play approach. (2) from the test of learning results using modified media with a play approach, discyclic I obtained 22 students (56.41%) who have reached learning completion, while 7 students have not yet reached learning completion. With the average score of the student's learning results reaching (69,71). Then learning is done again by using modified media with a different playing approach. (3) From the cycle II learning result test in cycle II, 36 students (92,31%) were obtained who had achieved learning completion, while 3 students had not achieved learning completion. With an average score of 80,12.

#### Conclusion

In this case, it can be seen that there is an increase in the average score of student learning results from cycle I to cycle II which is 3.5 and the increase in classical learning results is 80%. Based on the results of data analysis, it can be said that through media modification with a play approach, it can improve the learning results of volleyball under the volleyball service in class VII students of Bina Satria Mulia Junior High School in the 2024/2025 Academic Year.

**Keywords:** Approach to Play, Volleyball Under Service, Bina Satria Mulia Private Junior High School

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## INTRODUCTION

Recent advances in science and technology (IPTEK) have had a significant impact on the development of education, especially in developed countries. The breadth of scientific and technological achievement in a country is often used as a benchmark of its progress. Moreover, Information Technology (IT) has now clearly contributed positively to various aspects of human activities. To face the challenges brought by developments in IT, Indonesia must be able to produce qualified and competent citizens. This requires high-quality human resources who are skilled and able to compete globally, with competencies that include analytical, systematic, rational, imaginative, and productive thinking, as well as teamwork abilities.

Education essentially plays a crucial role in improving the intellectual capacity of a nation, aiming to enhance the quality of Indonesian citizens socially, spiritually, intellectually, and professionally. Therefore, the development of sports needs to be fostered and improved throughout the country, especially in schools, as it can support students' learning experiences. Education has existed since the earliest stages of human life, in the sense that there has always been an effort to provide education aimed at fostering independence within society. Although the forms, goals, and methods of education have varied from one era to another, they consistently aim to improve the quality of teaching and learning experiences.

This is understandable because guiding students toward change is a challenging task. It requires strong and continuous planning as well as effective delivery methods so that students can undergo the

expected transformation. To achieve this, appropriate teaching styles and methods must be applied in the learning process. Education, therefore, is part of an approach designed to develop students' learning outcomes. With the implementation of the "Merdeka Belajar" curriculum, both teachers and students are required to be affective, creative, innovative, cognitive, psychomotor, and proportional, while demonstrating good character and possessing the necessary competencies, including professional, pedagogical, social, and personal competencies in every learning activity. Students are expected to apply the knowledge they acquire in their daily lives, ensuring that what they learn is always connected to its benefits within a social context. Positioning students as subjects of education fosters positive affective, creative, innovative, cognitive, psychomotor, and proportional behaviors. In this context, the teacher acts as a facilitator rather than the primary source of knowledge.

Developing emotional, creative, innovative, cognitive, psychomotor, and proportional attitudes among students is a challenge in itself. In practice, students are seen as active sources of learning, and the teaching and learning process places them as active learners within the school environment. The impact of learning is often directed at students who are actively involved in the process. Students who are engaged tend to show higher motivation toward the subjects they study, including physical education. The effectiveness of the learning process in physical education can be assessed through student achievement, which can be observed from their learning outcomes, understanding, and mastery of the material. The higher the effectiveness of learning, the higher the level of understanding, mastery, and learning outcomes achieved.

Volleyball is a sport played by various groups of society, ranging from teenagers to adults, both male and female, and from rural to urban areas. Volleyball is a competitive game played by two opposing teams, each consisting of six players. The techniques involved in volleyball can be explained through specific methods, and to achieve optimal results, the ball must be played correctly and efficiently in accordance with the established rules. Volleyball is a sport that requires a wide range of skills, and not everyone can perform it easily. This is because it requires well-coordinated movements to execute all aspects of the game effectively. The basic skills that need to be developed include serving, underhand passing, overhead passing, blocking, and spiking. The fundamental principle of team games, including volleyball, is cooperation with the goal of winning. Each player must master volleyball tactics to achieve the desired results.

The basic concept in volleyball is to score points by sending the ball into the opponent's area. Factors influencing accurate ball placement include coaching, training methods, serving ability, physical condition, and the availability of facilities and infrastructure. Volleyball is part of sports activities that require playing skills, including mastery of techniques and good physical condition. These abilities are interrelated, as technical mastery is supported by physical fitness. Volleyball is also categorized as a competitive sport, requiring talented athletes who ideally begin training from a young age.

The underhand serve in volleyball is the most basic and fundamental technique, yet it is very important. Observations conducted on students at SMP Swasta Bina Satria Mulia showed that their basic underhand serving skills were still lacking. Most students did not understand the correct technique and tended to hit the ball improperly, often using the wrong part of the hand, resulting in unpredictable ball trajectories. In performing an underhand serve, students must understand the correct technique, including the preparation position, the point of contact with the ball, and the proper stance.

The underhand serving technique consists of the preparation phase, the execution phase (hitting the ball), and the follow-through phase, with the correct contact point typically around the wrist area. However, students often make errors at the initial stage, such as unstable contact with the ball and improper body positioning, which results in inaccurate ball trajectories that often go out of bounds. Physical education teachers also tend to give students too much freedom during volleyball activities without providing sufficient guidance or direction. In addition, a play-based learning approach has not yet been effectively implemented in the teaching process.

## METHOD

### Research Design

This research uses the Classroom Action Research (CAR) method. Classroom Action Research is a reflective study conducted by teachers in their own classrooms with the aim of continuously improving and enhancing the quality of learning.

### Participant

The subjects in this study were 39 students of class VIII-1 of Bina Satria Mulia Private Middle School in the 2024/2025 Academic Year.

## Data Analysis

The data analysis used consisted of several stages, including the following:

### 1. Data Reduction

The data reduction process was carried out by selecting, simplifying, and transforming the data presented in the field note transcripts. This data reduction activity aimed to identify student errors or deficiencies in the test and the actions taken to correct these errors.

### 2. Data Presentation

In this activity, data obtained from student learning outcomes was presented in tabular form using a predetermined formula. This is in accordance with the Minimum Completion Criteria (KKM) for the subject of physical education, sports, and health for junior high school students in the independent learning curriculum.

## RESULTS AND DISCUSSION

### Results

This research was conducted at Bina Satria Mulia Private Junior High School, Medan, during the 2024/2025 academic year. The study was conducted according to the eighth-grade class schedule. The following is a description of the research data, starting with the Cycle I and Cycle II tests.

The description of the research data at Bina Satria Mulia Private Junior High School, Medan, for the 2024/2025 academic year, starting with Post-test I and Post-test II, obtained by students, is shown in the following table:

Based on the results of the Cycle I test using portfolios, 19 students had achieved the learning mastery level, while 20 students had not achieved the expected learning mastery level. The students' classical learning mastery level was 69.71%, but not the expected classical mastery level of 75%, thus not achieving optimal results. Therefore, the scores obtained in Cycle II were considered to have achieved learning mastery.

After the implementation of the action in cycle I which was carried out in one meeting, the students were then given a learning outcome test where it was obtained that out of 39 students only 22 people met the minimum criteria (KKM), meaning they had not achieved classical learning completion, then the data from the observations of Teachers and Students obtained low results in volleyball underhand passing lessons because the Teacher had not been able to optimally manage and implement student learning activities both in explaining the underhand service material, in conducting apperception, providing motivation to students and the delivery of the material was not systematic. Meanwhile, students were less ready (not serious) in following the lesson and had not understood the learning model given by the teacher. The result in the Portfolio Assessment Indicator 2, namely at the Contact Movement Stage, many students still made mistakes when contacting the ball, the position of the student's hand was not straight resulting in the ball not being as desired.

### Discussion

Furthermore, based on the results of the implementation in Cycle I, there was a significant improvement in Cycle II. From the assessment data in Cycle II, it can be seen that students' ability in performing the learning outcomes test classically had increased. Out of 39 students, 22 students achieved learning mastery.

From the observation results of both the teacher and the students regarding the improvement in learning outcomes, it was found that the management and presentation of the material by the teacher were quite good. However, the teacher had not provided maximum guidance for the students, although the interaction process with students was very good. Meanwhile, students were increasingly prepared and accustomed to participating in learning the underhand serve technique in volleyball.

Based on the portfolio assessment data, there were still a small number of students who made mistakes when performing the underhand serve test, especially in the contact phase. Out of 39 students who took the underhand serve test, 36 students had achieved mastery, while 3 students had not yet achieved mastery.

In Cycle II, it can also be observed that there was an increase in student activity compared to the previous cycle. From the results of the analysis, it was concluded that there was an improvement in students'

abilities. This improvement occurred after the implementation of learning using modified media with a play-based approach, which introduced different variations from Cycle I and was designed in Cycle II based on reflections and observations from Cycle I.

In the Cycle II learning outcomes test, the average student score reached 80.12%, with a mastery level of 92.30%. The increase in the average learning outcome score was 5.3, and the increase in classical mastery was 24.24%. Based on these results, it can be concluded that the use of modified media with a play-based approach in teaching the underhand serve in volleyball can improve students' learning outcomes among eighth-grade students of SMP Swasta Bina Satria Mulia Medan.

## CONCLUSION

Based on the average data and research results, it can be concluded that "Through Modified Media with a Playing Approach, Volleyball Underhand Service Learning Outcomes Can Be Improved in Class VIII Students of Bina Satria Mulia Private Middle School, Medan".

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## AUTHOR CONTRIBUTION STATEMENT

This research was conceptualized and designed by Elsa Reminisca Dwi Putri Mendrofa, who developed the research objectives and methodology, managed data collection, coordinated with participants, and supervised fieldwork at STOK Bina Guna Medan. Andi Nur Abady performed data analysis, interpreted the findings, and contributed significantly to the drafting of the manuscript. All authors participated in the revision of the manuscript, approved the final version for submission, and take full responsibility for the integrity and accuracy of the work.

## CONFLICT OF INTEREST AND FUNDING

The authors declare no conflict of interest related to the conduct, authorship, or publication of this study.

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