

Volleyball Underhand Serving Learning Outcomes Using Part by Part Strategies

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Abstract

This study aims to determine empirical data on efforts to improve learning outcomes of volleyball underhand service using the use of part-by-part strategies in class V students of MIS Sa'adatuddarain East Jakarta. The method used in this study is classroom action research. The data collection procedure uses an underhand service assessment rubric and observation sheet. The sample in this study was Class V Students of MIS SA'ADATUDDARAIN East Jakarta with a total of 29 students. The sampling technique was total sampling. Based on the results of data analysis, it was concluded that there was an increase in volleyball underhand service skills as seen from the values in cycle I to cycle II. In cycle I the completeness value was 66%, and in cycle II it became 83%. The average value of underhand service also increased, namely in cycle I it was 74, in cycle II it became 79. These data show an increase in volleyball underhand service skills from cycle I to cycle II.

Keywords: bottom service, part by part strategies, volleyball.

1 INTRODUCTION

Physical education is a learning process through physical activities designed to improve physical fitness, develop motor skills, knowledge and behavior of healthy and active living, sportsmanship, and emotional intelligence. The learning environment is carefully arranged to enhance the growth and development of all domains, namely physical, psychomotor, cognitive, and affective (Ega Trisna R, 2016). In other words, through physical activity, children are directed to learn through physical so that there will be a change in behavior not only concerning psychomotor aspects, but also cognitive and affective. So that schools as formal educational institutions in their national implementation have established a curriculum that is designed to realize national education goals by paying attention to the developmental stages of students and adjusting to their environment (Rusli Lutan, 2010). There are various sports in physical education including volleyball. Volleyball is an important sport to be introduced to students in elementary schools (SD). This is stated in the Basic Competencies (KD) 3.1 "Understanding variations of basic locomotor, non-locomotor, and manipulative movements according to the concept of body, space, effort, and connectivity in simple and/or traditional large ball games" and 4.1 "Practicing variations of basic locomotor, non-locomotor, and manipulative movements according to the concept of body, space, effort, and connectivity in simple and/or traditional large ball games" volleyball also has benefits for elementary school children, namely it can train cooperation and sportsmanship.

Based of the research, the implementation of the learning model in stages with a distance of 3 to 6 meters can improve the service ability of fifth grade students at SD Singapore School, Kelapa Gading in the 2018/2019 school year (Widhiasto, Raden W & Andi T,B,

2020). The volleyball technique studied in this research is the bottom serve technique. The reason for choosing this technique is because the bottom serve is part of the basic techniques that must be mastered apart from the top serve, passing, smash, and blocking/blocking.

One of the basic volleyball technical skills that can determine victory is the underhand serve technique. Robinson said that for new players, underhand serve is the easiest way (Rathomi Indra P, 2021). Mastery of a good underhand serve will not only be a starting shot but can develop into a powerful weapon for attacking. The Service as the beginning of the game develops into a technique that can be used for attacking (Dieter Beutelstahl, 2005:8). Based on the series of movements, underhand service is a service that is done from below. The hand that will hit the ball must be straight and tight, the elbow should not bend until the ball is hit loose. While the height of the ball that will be released by the left hand is adjusted to the needs (Munasifah, 2008). Based on the explanation above, introducing the basic techniques of correct underhand service to elementary school students will be the starting point for students to master the game of volleyball well.

Based on the results of observations conducted by the author on students of class V MIS Sa'adatuddarain East Jakarta in the process of learning physical education especially in volleyball games, several problems are still found. The problem is that students feel afraid when doing underhand service because the ball is considered heavy and they are afraid that their hands will be injured/hurt. Students in doing underhand service are also not in accordance with the correct and proper basic techniques. This can be seen when throwing the ball, most students throw it too high or too low, so that the ball cannot pass the net. The part-by-part method is a teaching method that moves from a part to the whole, or from the specific to the general. The part-by-part method is a form of skill training that is carried out in parts of the skills being learned. The method begins by teaching the smallest parts of a skill and is finally built into a complete skill (Gurit Prastowo & A R Syam, 2014). This part-by-part learning method is generally used by educators to teach a form of movement skill that is quite difficult or complex (Renno Adiesta & Abdul Rachman Syam Tuasikal, 2017). PJOK in implementing the teaching and learning process is mainly to help students who have difficulty learning a series of movements that are new and have a high level of difficulty. To anticipate the complexity and diversity of these movements, it is necessary to carry out a kind of simplification first of the movements to be learned into parts so that they are easy to understand and learn by students. This approach will be good (effective) if the parts of the movements that are learned and understood or mastered first are then combined into a complete movement, otherwise this method becomes ineffective if students directly learn the movements as a whole [Adesta & Tuasikal, Op. Cit., p. 10.].

Learning outcomes are the final goal to be achieved from a learning process. According to Nana Sudjana, learning outcomes are the abilities that students have after receiving their learning experience (Nana Sudjana, 2001). with learning outcomes that can be measured within a certain time and using learning outcome tests by teachers to students in the learning process.

2 RESEARCH METHODS

This research is a classroom action research. used to find out empirical data on efforts to improve learning outcomes of volleyball underhand service using the use of part-by-part strategies in class V students of MIS Sa'adatuddarain East Jakarta.

In its planning, the cycle model uses a self-reflection spiral system that begins with planning, action, observation, reflection and re-planning. Starting from one cycle or stage to the next cycle with the hope that the part-by-part strategy can be improved, so that the learning outcomes of students' volleyball underhand service learning outcomes increase. The data sources in this study come from the ongoing learning process, both activities carried out by teachers and activities carried out by class V students of MIS

Sa'adatuddarain East Jakarta during volleyball underhand service learning with part-by-part strategies, which are stated in a record of events during the volleyball underhand service learning process and assessment of volleyball underhand service learning outcomes.

Researchers use several data collection tools that support the achievement of maximum results. The data collection tools that will be used are: (1). Assessment instrument, using a lower service assessment rubric. The advantage of this instrument is that teachers can determine for themselves what components need to be observed that are adjusted to what is the core of the lesson given. The format of the assessment rubric is as follows:

Table 1. Bottom Service Assessment Rubric

No	Indicator	Score
1	Preparation stage Students can do the 4 stages well and correctly. 1. Facing the service target on the other side of the net 2. The front foot (the foot opposite the serving hand) points towards the target and the body is perpendicular to the target. 3. Stand steadily, with your knees slightly bent in a balanced position. 4. The upper body should lean slightly forward, with weight on the back leg.	4
	Students can do the 3 stages well and correctly	3
	Students can do the 2 stages well and correctly	2
	Students can do the 1 stages well and correctly	1
2	Throwing stage Students can do the 4 stages well and correctly. 1. The ball is held in the palm of the hand not used for hitting. 2. The player extends the hand holding the ball in front of his shoulder at hip height. 3. Stretch the hand used to hit to the back of the body. 4. Short ball throw from hand, just above hip height.	4
	Students can do the 3 stages well and correctly	3
	Students can do the 2 stages well and correctly	2
	Students can do the 1 stages well and correctly	1
3	Contact stage with the ball Students can do the 4 stages well and correctly 1. The ball must be hit while it is in the air immediately after the throw is made. 2. Eyes are focused on the ball when contact with the ball occurs to ensure proper contact.. 3. The hand position used to hit the ball is the part of the hand with a firm and flat surface. 4. Contact with the ball should be just below the center of the back of the ball, allowing the ball to move forward, up and over the net.	4
	Students can do the 3 stages well and correctly	3
	Students can do the 2 stages well and correctly	2
	Students can do the 1 stages well and correctly	1
4	Advanced Movement Stage Students can do the 4 stages well and correctly 1. Taking a step forward to transfer the weight from the back to the front foot, or the player can shift the weight forward without taking a step.	4

2. The follow-up movement of the hand that makes contact with the ball must be at shoulder height and towards the opponent's court.	
3. The server must maintain this position just before entering the court to play defense.	
4. Back in ready position.	
Students can do the 3 stages well and correctly	3
Students can do the 2 stages well and correctly	2
Students can do the 1 stages well and correctly	1

$$Nilai = \frac{\text{Total Skor Perolehan}}{\text{Total Skor Maksimum}} \times 100$$

(1). Field data notes one way to report the results of observations, reflections and reactions to problems during research. These field data notes are used to record all observer observations during the learning process. (2). Documentation is used to record and photograph events during the learning process. Documentation is also used as a tool to describe problems that occur in learning.

Data analysis techniques and criteria are used to analyze data that occurs in the teaching and learning process, this analysis includes: description, interpretation, and reflection on things that occur in the teaching and learning process. This analysis includes three activities, namely data reduction, data description and data verification to draw conclusions. Data reduction, in data reduction activities, researchers select, focus, discard, organize data so that conclusions can be described and verified. Data reduction is an effort to clarify data, including: by fine selection, summarizing, and entering data in a pattern or changing data in the form or ranking. Data description, researchers present data in the form of models or data displays. A data model is a collection of data, information, which allows researchers to draw conclusions and take action based on those conclusions. Data verification and drawing conclusions, the final stage of data analysis activities is to draw conclusions based on the data model presented. Verification of the conclusions of this study is carried out by carefully reading, checking, and comparing the data collected from sources and methods so as to arrive at a conclusion.

Quantitative data in the form of data on students' ability to dribble football was analyzed starting from checking the answer sheets for the ability to do the movement test, giving scores, calculating the total score obtained by each student, and giving grades. In this classroom action research, quantitative description analysis was used, this analysis was calculated using simple statistics.

To determine classical completeness, use the following formula:

$$KB = \frac{\text{Jumlah Siswa Tuntas}}{\text{Jumlah Keseluruhan Siswa}} \times 100$$

To determine learning completion, scoring and learning success standards are carried out. The physical education system uses a mastery learning system, namely students are successful if they achieve 75% mastery of the material so that the indicator of mastery achievement in the study is determined on the material by classical learning completion of 75%. If the achievement of classical learning completion of at least 75% has been achieved, the study is stopped.

3 RESULT AND DISCUSSION

The results of this study are observations in the field regarding student learning outcomes in learning volleyball underhand service through a section-by-section strategy for class V students at MIS Sa'adatuddarain, East Jakarta. The results of this study include test and

non-test results during the study. The test results are in the form of performance tests on the skills aspect, while the non-test results are obtained from observations by researchers and collaborators. Learning volleyball underhand service through a section-by-section strategy is carried out in 3 stages, namely pre-cycle, cycle I and cycle II.

3.1 Sub Hasil

Description of Pre-Action

The initial conditions of the study were measured from field observations and data from PJOK teachers. In the pre-cycle, the conditions of students in class V MIS Sa'adatuddarain, East Jakarta in learning volleyball underhand service were still low. It is known that the physical education learning process that occurs at MIS Sa'adatuddarain, East Jakarta is not optimal.

From the observation results, it shows that the learning outcomes of volleyball underhand serve in class V students of MIS Sa'adatuddarain East Jakarta have an average value of 63, the highest value of 88, and the lowest value of 31. Based on the classical learning completion value of 75, only 8 students or 28% were declared complete and 21 students or 72% were declared incomplete out of 29 students.

In more detail, the learning outcomes of class V students of MIS Sa'adatuddarain East Jakarta in physical education learning with volleyball underhand serve material can be seen in the following table:

Table 2. Frequency distribution of pre-action learning outcomes

No	Score	Explanation	Frequency
1	23 – 35	Failure	1
2	36 – 48	Failure	3
3	49 – 61	Failure	6
4	62 – 74	Failure	11
5	75 – 87	Passed	7
6	88 – 100	Passed	1
Total			29

Based on the frequency distribution table above, the data obtained are students who get scores in the range of 23-35 as many as 1 student, students who get scores in the range of 36-48 as many as 3 students, students who get scores in the range of 49-61 as many as 6 students, students who get scores in the range of 62-74 as many as 11 students, students who get scores in the range of 75-87 as many as 7 students, and students who get scores in the range of 88-100 as many as 1 student. Statistics on the results of learning volleyball underhand service pre-action in class V students of MIS Sa'adatuddarain East Jakarta can be seen in the bar chart as in the following picture:

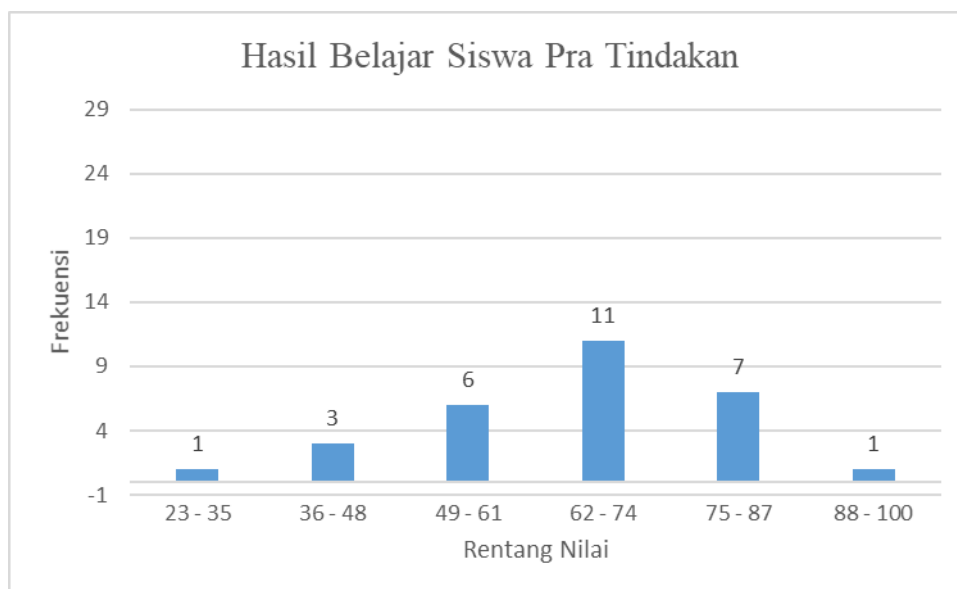


Figure 1. Frequency distribution of pre-action learning outcomes

Based on the frequency distribution table above, the data obtained are students who get scores in the range of 23-35 as many as 1 student, students who get scores in the range of 36-48 as many as 3 students, students who get scores in the range of 49-61 as many as 6 students, students who get scores in the range of 62-74 as many as 11 students, students who get scores in the range of 75-87 as many as 7 students, and students who get scores in the range of 88-100 as many as 1 student. Statistics on the results of learning volleyball underhand service pre-action in class V students of MIS Sa'adatuddarain East Jakarta can be seen in the bar chart as in the following picture:

Cycle I

The learning outcomes of students in cycle I in physical education learning in volleyball underhand service using the part-by-part strategy can be seen as follows:

Table 3. Recapitulation of Learning Results Cycle I

Total Students	KKM	High Score	Lower Score	Average	Passed	%	Failure	%
29	75	94	56	74	19	66	10	34

From the learning results in Cycle I, it shows that the learning outcomes of volleyball underhand serve in class V students of MIS Sa'adatuddarain East Jakarta experienced an increase in the average value of 74, the highest value of 94, and the lowest value of 56. Based on the classical learning completion value of 75, 19 students or 66% were declared complete and 10 students or 34% were declared incomplete out of the 29 students.

In more detail, the achievement of learning outcomes in Cycle I of class V students of MIS Sa'adatuddarain East Jakarta in physical education learning with volleyball underhand serve material can be seen in the following table:

Table 4. Frequency distribution of learning outcomes for Cycle I

No	Score	Explanation	Frequency
1	23 - 35	Failure	0
2	36 - 48	Failure	0
3	49 - 61	Failure	1
4	62 - 74	Failure	9
5	75 - 87	Passed	17

6	88 – 100	Passed	2
Total			29

Based on the frequency distribution table above, the data obtained were students who got scores in the range of 23-35 as many as 0 students, students who got scores in the range of 36-48 as many as 0 students, students who got scores in the range of 49-61 as many as 1 student, students who got scores in the range of 62-74 as many as 9 students, students who got scores in the range of 75-87 as many as 17 students, and students who got scores in the range of 88-100 as many as 2 students. Statistics on the results of learning volleyball underhand service pre-action in class V students of MIS Sa'adatuddarain East Jakarta can be seen in the bar chart as in the following picture:

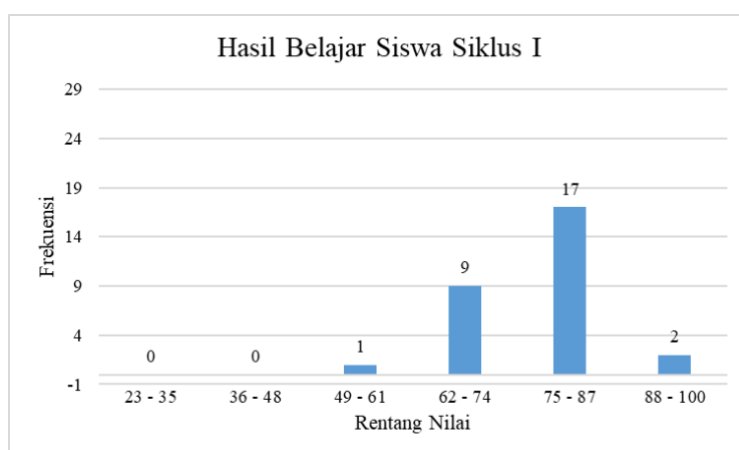


Figure 2. Frequency distribution of learning outcomes in Cycle I

Based on the results of cycle I, it can be concluded that the level of learning completion in cycle I still does not meet the criteria for classical learning completion, which is still below 75%, so the researcher will continue the research to the Cycle II stage.

Cycle II

The learning outcomes of students in cycle II in physical education learning in volleyball underhand service using the part-by-part strategy can be seen as follows:

Table 5. Recapitulation of Learning Results Cycle II

Total Students	KKM	High Score	Lower Score	Average	Passed	%	Failure	%
29	75	94	69	79	25	86	4	14

From the learning results in Cycle II, it shows that the learning outcomes of volleyball underhand serve in class V students of MIS Sa'adatuddarain East Jakarta experienced an increase in the average value of 79, the highest value of 94, and the lowest value of 69. Based on the classical learning completion value of 75, 25 students or 86% were declared complete and 4 students or 14% were declared incomplete out of 29 students.

In more detail, the achievement of learning outcomes in Cycle II of class V students of MIS Sa'adatuddarain East Jakarta in physical education learning with volleyball underhand serve material can be seen in the following table:

Table 6. Frequency distribution of learning outcomes in Cycle II

No	Score	Explanation	Frequency
1	23 – 35	Failure	0
2	36 – 48	Failure	0

3	49 – 61	Failure	0
4	62 – 74	Failure	4
5	75 – 87	Passed	20
6	88 – 100	Passed	5
Total			29

Based on the frequency distribution table above, the data obtained were students who got scores in the range of 23-35 as many as 0 students, students who got scores in the range of 36-48 as many as 0 students, students who got scores in the range of 49-61 as many as 0 students, students who got scores in the range of 62-74 as many as 4 students, students who got scores in the range of 75-87 as many as 20 students, and students who got scores in the range of 88-100 as many as 5 students. Statistics of the results of learning volleyball underhand service pre-action in class V students of MIS Sa'adatuddarain East Jakarta can be seen in the bar chart as in Figure 20 below:

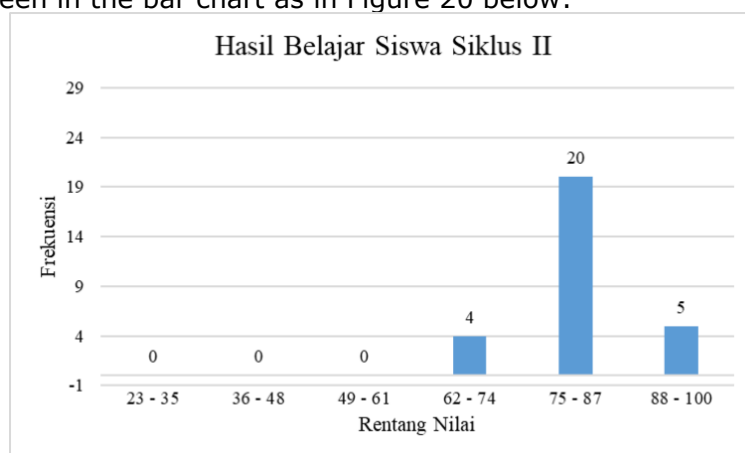


Image 3. Frequency distribution of learning outcomes in Cycle II

3. 2. Discussion

The results of the observation showed that dividing the movements into several parts made it easier for students to understand and master the underarm service technique gradually. Students showed higher enthusiasm in participating in learning, because the method used was more interactive and interesting. Providing direct feedback from the teacher helped students correct their mistakes during practice.

The results of the observation in cycle I showed a significant increase. The average student score increased to 74, with the highest score of 94 and the lowest score of 56. Of the 29 students, 19 students (66%) were declared complete, while 10 students (34%) were not complete. The distribution of scores in cycle II showed improvement: 1 student scored 49-61. 9 students scored 62-74. 17 students scored 75-87. 2 students scored 88-100.

When practicing in groups, students looked enthusiastic and helped each other. Most students were also able to perform the underhand serve movement according to instructions and showed self-confidence. This shows that the part-by-part learning method is effective in helping students understand and practice the underhand serve technique.

In cycle II, the main focus is to improve the movement in more detail and modify the service distance to increase student motivation. Learning is carried out in stages, where in the initial stage it is to improve the position of the feet and hands, the next stage is to improve the swing of the hand, the next stage is to improve contact with the ball, and the last stage is to adjust the service power starting from a closer distance to the actual distance.

The results of observations in cycle II showed a significant increase. The average student score increased to 79, with the highest score of 94 and the lowest score of 69. Of the 29 students, 25 students (86%) were declared complete, while 4 students (14%) had not

completed. The distribution of scores in cycle II showed improvement: 4 students scored 62-74. 20 students scored 75-87. 5 students scored 88-100. The results of cycle II showed that classical completeness had been achieved with 86% of students achieving KKM. Gradual improvement of lower service has proven effective in increasing student motivation and ability. Because these results have met the completeness criteria, the research can be stopped in cycle II.

3 CONCLUSION

Based on the results of the research and discussion that have been described, it can be concluded that learning volleyball underhand serve using the part-by-part method can improve the learning outcomes of volleyball underhand serve in class V students of MIS Sa'adatuddarain East Jakarta. The improvement in volleyball underhand serve skills can be seen from the scores in cycle I to cycle II. In cycle I the completion score was 66%, and in cycle II it became 83%. The average score for underhand serve also increased, namely in cycle I it was 74, in cycle II it became 79. These data show an increase in volleyball underhand serve skills from cycle I to cycle II.

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