

Application Of Project Based Learning Model In Improving Volleyball Underwear Passing Skills Students Of Class XI M4 State Senior High School

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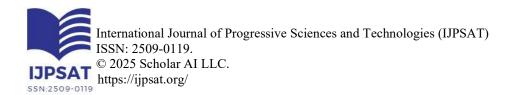
Abstract: Project Based Learning provides students with the opportunity to explore skills and creativity and encourages students to be more active. This study aims to determine the improvement of volleyball underhand passing skills in class XI M4 students of State Senior High School 1 Tanjung Bintang. The research method used in this study is Classroom Action Research (CAR). The subjects of the study were 36 students with 11 male students and 25 female students. The results of the study indicate that the learning approach using the Project Based Learning learning model can improve the volleyball underhand passing skills of class XI M4 students of State Senior High School 1 Tanjung Bintang. The improvement of volleyball underhand passing skills can be seen from the start test, cycle I to cycle II. In the start test, the completion value of male students was 36% and female students 24%. In cycle I, the completion value of male students was 45% and female students 40%. In cycle II, the completion value of male students became 91% and female students 88%. The data shows an increase in volleyball underhand passing skills from the start test, cycle I to cycle II.

Keyword: skills, underhand passing, volleyball

I. INTRODUCTION

Education has 3 (three) types, namely formal, non-formal, and informal education. School education pathways include primary education, secondary education, and higher education. Education in schools is defined as a formal process that aims to develop the potential of students through structured teaching [1]. Education in schools should focus on deep and meaningful learning. Emphasizing the importance of changes in the education system that allow students to think critically, collaborate, and engage creatively. So that education reform must involve all stakeholders, including teachers, students, and communities [2]. This shows that education in schools is not only about delivering information, but also about developing character, creativity, physical strength, reasoning and critical thinking skills of students [3].

The objectives of physical education must include objectives in the psychomotor, cognitive, and affective fields. In addition, physical education makes it easier for students to be directly involved in various learning activities through physical, play, and sports materials that have been provided systematically and in a planned manner. Physical education in secondary education is carried out through various forms of sports that contain physical elements [4]. Among them are big ball games, small ball games, athletics, martial arts, and physical fitness. Big ball games are one of the competent things in the core of learning Physical Education, Sports and Health for class XI. Big ball games for class XI are volleyball, soccer, basketball, and sepak takraw.





One of the big ball games is volleyball. Volleyball is a game that relies on teamwork. According to [5], volleyball as a competitive sport that emphasizes team coordination and mastery of techniques, as well as the ability to read the opponent's game. Volleyball is considered as one of the sports that requires a quick response and good analytical skills. The game uses a ball made of rubber or leather and the playing area is separated by a net. Volleyball matches are usually divided into 2-5 sets, where a team that has obtained 25 points first, the team will be declared the winner in that set. In the game of volleyball, there are five types of basic volleyball skills, namely: passing, serving, blocking, smashing, and set upper. The five types of basic volleyball skills must be mastered by the players. If a player does not master the basic volleyball techniques well, then the player will make mistakes that will occur when playing volleyball and result in defeat [6].

Volleyball playing technique is an individual's ability to perform basic movements in volleyball aimed at winning the match, such as mastering the serve, receiving the ball, organizing attacks, and holding back the opponent's attack [7]. One of the techniques in volleyball is the underhand pass, the underhand pass technique in volleyball is an attempt by a player who uses a certain technique to pass the ball he is playing to a teammate to be played on his own court, the number of passes allowed in volleyball is only three passes. Underhand passing is a basic technique movement that is quite difficult for laypeople. Because as the core in maintaining team play, when doing underhand passing movements, the appropriate technique must be used.

In addition, education is closely related to learning and teaching. According to [8], learning can be interpreted as a process of a container for communication with the aim of achieving positive behavior between educators and students and between students and students. The learning model is a pattern or structure used in the learning process, which is designed to help teachers deliver learning materials in a systematic and structured way, so that it can improve students' understanding of the material being taught [9]. There are several learning models that can be given to students in carrying out learning, namely the Inquiry Learning model, the Discovery Learning model, the Project Based Learning model, and the Problem Based Learning model.

One of the learning models that can be used in volleyball learning is the Project Based Learning model. The Project Based Learning model is a learning model that is centered on students by using problems as the first step in finding a product [10]. The Project Based Learning Model encourages students to be more active in participating in learning. Through the Project Based Learning Model, it is able to support students in solving problems by compiling real projects [11]. Project based learning provides opportunities for students to explore skills, creativity and encourage students to be more active. So that the Project Based Learning Model is able to make learning more real and enjoyable and encourage students' learning motivation.

Project Based Learning has several advantages over other learning methods. According to [12], Project Based Learning has several advantages, namely (1) Creating an increase in motivation; (2) Creating an increase in students to solve problems; (3) Increasing cooperation; (4) There is encouragement in communication skills; (5) Improving students' skills in managing resources; (6) Making the learning atmosphere fun.

Researchers conducted observations when physical education, sports and health learning was held for volleyball material for class XI M4 at student of State Senior High School 1 Tanjung Bintang. Based on the results of observations and observations of researchers, the ability of students to carry out basic volleyball movement learning is still not quite right, seen when the position of the fingers or wrists is not closed properly, the ball hits the upper arm and shoulder, and hand movements that are too active cause the ball to not be directed properly. A posture that is too upright and a foot position that is too wide or too close together make ball control more difficult. From the results of these observations, an appropriate learning model is needed in an effort to improve students' underhand passing learning outcomes in volleyball. The Project Based Learning learning model is one of the learning models with special characteristics of designing and carrying out a project in it. The Project Based Learning model will stimulate students to explore, assess, interpret, synthesize, and provide information to produce various forms of learning outcomes, especially for volleyball underhand passing skills. This learning model can increase students' creativity in solving a problem.

II. REASERCH METHOD

1. Research Method

The research method in this study is the CAR method. [13] stated that CAR is an effort made by teachers to overcome real problems in learning by implementing planned actions and adjusting them to classroom conditions. One of the characteristics of classroom



action research is the existence of measurable and planned steps in a cycle, and each cycle has goes through planning, acting, observing, and reflecting phases. Classroom action research has the following characteristics:

- 1. The problem starts with the teacher
- 2. The goal is to improve learning
- 3. The main method is self-reflection while still following research principles
- 4. The focus of the research is in the form of learning activities
- 5. The teacher acts as a teacher and researcher

2. Research Design

In this study, the author conducted research up to 2 cycles, with each cycle consisting of 4 stages, namely:

- 1. Planning what actions to take to improve, enhance or change the desired behavior and attitudes.
- 2. Action, implementing what the researcher does as an effort to improve, increase, or change the desired.
- 3. Observation, observing the results of the implementation.
- 4. Reflection, the researcher examines, sees, and considers the results of various criteria.

Using a research model that refers to the research process that begins with: (1) Planning, (2) Acting, (3) Observing, (4) Reflecting, and re-planning which is the basis for solving a problem. The four stages are interconnected because each action begins with the planning stage where the researcher prepares a learning plan, provides activity sheets and creates research instruments used in the action stage. The main objective of CAR is to improve learning practices in the classroom. The research design can be seen in the image below:

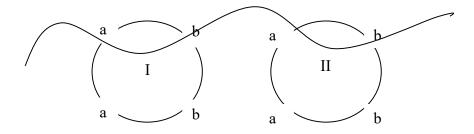


Figure 1. Classroom Action Research Cycle adapted from [14]

Source: Journal of Progressive Education, 2011.

Action research steps taken by researchers:

1. Action Planning

Based on the identification of problems carried out at the pre CAR stage, an action plan is prepared to empirically test the determined action hypothesis. This action plan includes all action steps in detail. All the needs for implementing CAR, starting from materials or teaching materials, teaching plans that include teaching methods or techniques, as well as observation or evaluation techniques or instruments, are prepared carefully at this planning stage. At this stage, it is also necessary to take into account all obstacles that may arise during the implementation stage. By anticipating more than expected, the implementation of CAR can take place well in accordance with the determined hypothesis.



2. Implementation of Action (Acting)

This stage is the implementation of all plans that have been made. This stage, which takes place in the classroom, is the realization of all educational theories and teaching techniques that have been prepared previously. The steps taken by the teacher of course refer to the applicable curriculum, and the results are expected to be in the form of increased effectiveness of collaborator involvement simply to help researchers to be able to sharpen the reflection and evaluation that they do on what happens in their own class. In this reflection process, all experiences, knowledge, and learning theories that are mastered and relevant.

3. Observation of Actions (Observing)

Observation activities are carried out simultaneously with the implementation of actions. Data collected at this stage contains the implementation of actions and plans that have been made, as well as their impact on the instructional process and results collected with the help of observation instruments developed by the researcher. At this stage, it is necessary to consider the use of several types of research measurement instruments for the purpose of data triangulation.

4. Reflection of Actions (Reflecting)

This stage is a stage for processing data obtained during observations. The data obtained are then interpreted and their explanations are sought, analyzed, and synthesized. In this data review process, it is possible to involve outsiders as collaborators. The involvement of collaborators is simply to help researchers to be able to reflect and evaluate more sharply. In this reflection process, all experiences, knowledge, and instructional theories that are mastered and relevant to the classroom actions that were previously carried out, become considerations and comparisons so that a solid and valid conclusion can be drawn. This reflection process plays a very important role in determining the success of CAR.

3. Research Variables

3.1. Independent Variable

The independent variable is a variable whose values do not depend on other variables that are useful for predicting and explaining the value of the variable symbolized by (X), the independent variable in this study is the application of the Project Based Learning model.

3.2. Dependent Variable

The dependent variable is a variable whose values depend on other variables and is a variable whose value is explained, the dependent variable is symbolized by (Y). The dependent variable in this study is the skill of passing under the volleyball ball.

4. Population and Research Sample

4.1. Population

A population is a group of subjects or objects in a generalization area that has certain qualities and characteristics determined by the researcher to be studied and drawn conclusions [15]. The population in this study was 36 students of class XI M4 State Senior High School 1 Tanjung Bintang.

4.2. Sample

The sample of this study was students of class XI M4 with a total of 36 students consisting of 15 male students and 16 female students.

5. Place and Time of Research

5.1. Place

This research was conducted at students of State Senior High School 1 Tanjung Bintang, which is located at street Antara No. 01, Jatibaru, district Tanjung Bintang, South Lampung Regency, Lampung.



5.2. Time

The implementation of this classroom action research effectively began in January 2024 for 4 meetings (2 weeks).

6. Research Instruments and Data Collection Techniques

6.1. Research Instruments

A research instrument is a tool used to collect data or measure the subject of a research variable. To obtain accurate data for factual statements, valid and consistent (reliable) tools are needed to convey research data [16].

This research was conducted by measuring and testing to obtain the required data. This data collection was conducted using the Underhand Passing Test research instrument recommended by AAHPERD (American Alliance for Health, Physical Education, Recreation, and Dance).

Underhand Passing Test

- 1. Test tools and equipment:
 - a) Volleyball
 - b) Stopwatch
 - c) Whistle
 - d) Pole measuring 2.30 m for men and 2.15 m for women.
 - e) Square field measuring 4.5 m x 4.5 m.

2. Test Officer:

The test officer consists of 2 people, each of whom has the following duties:

- a) Tester I:
 - (1) Tester stands freely near the test area.
 - (2) Tester counts the time for 60 seconds.
 - (3) Tester gives a signal.
 - (4) Tester records the number of passes for each participant.
- b) Tester II:
 - (1) Tester stands freely near the test area.
 - (2) Tester pays attention to the position of the feet when leaving the test area.
 - (3) The tester calculates the correct underhand pass.
- 3. Test implementation:
 - (1) The testee stands in the middle of a 4.5 x 4.5 m area.
 - (2) After hearing the start whistle, the testee tosses the ball.
 - (3) After the ball is tossed, the testee makes an underhand pass with a minimum height of 2.30 m for men and 2.15 m for women.
 - (4) If the testee fails to make an underhand pass and the ball goes out of the area, the testee immediately picks up the ball and continues the underhand pass again.

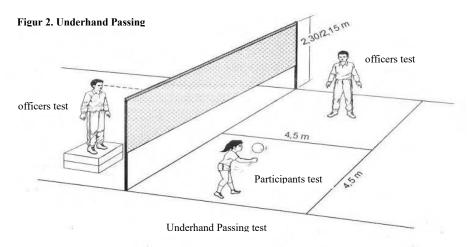


(5) If both of the testee's feet are outside the area, the tester II orders the testee to immediately return to the area, and the ball that bounces when both feet are outside the area is not counted.

4. Scoring:

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- (1) Calculate the number of underhand passes when the ball reaches a minimum height of 2.30 m for men and 2.15 m for women.
- (2) The test score taken is the highest frequency obtained after repeating the test 2 times.



6.2. Data Collection

Data collection techniques are the most important step in research, because the main purpose of research is to obtain data. Without knowing the data collection techniques, researchers will not obtain data that meets the established data standards. Data collection procedures play an important role in research, therefore data collection activities must be carried out based on the right techniques to obtain relevant and useful data.

Data collection techniques are divided into two types, namely tests and non-test. The test technique in this study is in the form of a volleyball underhand passing skills test. While the non-test technique is in the form of documentation.

1) Test

The test technique used in this study is a volleyball underhand passing skills test. This test is used to determine the level of volleyball underhand passing skills of class XI M4 students of State Senior High School 1 Tanjung Bintang in receiving material from that given by the Physical education, sports and health teacher. In this CAR there are three tests, namely the start ability test, cycle I test and cycle II test.

2) Documentation

Documentation in this study is in the form of documents or archives during the study and also photos or images during the implementation of Physical education, sports and health learning in class XI M4 SMA at State Senior High School 1 Tanjung Bintang.

7. Data Analysis Technique

To find out how to improve the basic skills of volleyball underhand passing techniques in class XI M4 students of State Senior High School 1 Tanjung Bintang, the data analysis used in this study uses qualitative and quantitative analysis. Qualitative data analysis is used to determine the improvement of the learning process in the form of the results of interviews with Physical education, sports and health teachers. While the quantitative data analysis used in this study is a quantitative descriptive statistical test data analysis technique which is a type of statistical analysis that describes the characteristics of a sample or population with a percentage.





According to [17] the formula used to process data is as follows:

Description:

P = Percentage number

f = Frequency or number of values

N = Number of frequencies or number of individuals

According to (Arikunto, et al., 2010) as a reference for the level of success of the action can be seen in the following:

Table 1. Level of Action Success

Action Success (%)	Success Rate		
80-100%	very good		
66-79%	good		
56-65%	enough		
40-55%	not good		
<40%	very bad		

Sources: Data processing, 2025.

The assessment criteria based on the KKM at SMA of State Senior High School 1 Tanjung Bintang can be seen as follows: The Quality Assessment Criteria is the student's best opportunity when doing a volleyball underhand passing test for 1 minute.

III. RESULT AND DISCUSSION

1. Result

The implementation of Classroom Action Research (CAR) on volleyball underhand passing learning was carried out on January 28–February 7, 2025 at State Senior High School 1 Tanjung Bintang. Before the CAR was carried out, the first step was an start test of volleyball underhand passing. The results of this test are very useful for determining the actions to be taken in each cycle. In addition, start findings are useful for seeing the percentage of learning outcomes in each cycle to determine whether the actions taken can improve basic volleyball underhand passing technique skills.

To obtain the required data, the researcher carried out two cycles, each cycle consisting of 2 meetings held for two weeks. Each student was given two opportunities to do a volleyball underhand pass for 1 minute. The researcher determined the minimum distance for underhand passing which was different between male and female students. The calculation of the underhand passing that was recognized was the ball bouncing above the head, for a minimum distance of 2.30 meters for male students and 2.15 meters for female students. The following is the data from the implementation of the research on volleyball underhand passing skills for class XI M4 students at State Senior High School 1 Tanjung Bintang:

Table 2. Volleyball Underhand Passing Skills Results Data

No Learning Level		Students Completed			
	Famale		Male		
	Learning Level	Number of participants	(%)	Number of participants	(%)
1	Start Test	6	24%	4	36%
2	Cyclus I	10	40%	5	45%
3	Cyclus II	22	88%	10	91%



Sources: Data processing, 2025.

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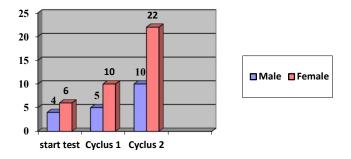


Figure 3. Volleyball Underhand Passing Skills Results Diagram

Table 2 and Figure 3, it can be seen that Based on the table and diagram above, the research that has been conducted has been able to improve the volleyball underhand passing skills of class XI M4 students of State Senior High School 1 Tanjung Bintang in the 2024/2025 Academic Year. Judging from the percentage level starting from the start test, cycle I and cycle II, the level of completion of the underhand passing skills test in the start test there were 6 female students with a success percentage of 24% and 4 male students with a success percentage of 36% so that it was included in the very poor category. In cycle I there were 10 female students with a success percentage of 40% and 5 male students with a success percentage of 45% so that it was included in the poor category. Then in cycle II there was an increase, namely 22 female students with a success percentage of 88% and 10 male students with a success percentage of 91%. The basic underhand passing technique skills in cycle II had a success percentage that reached the very good category, so it can be concluded that the objectives of this study have been achieved, and there is no need to follow up in the next cycle.

a. Start Test Action

In the start test stage, the researcher conducted an start identification of the problem conditions faced by students in the basic movement of volleyball underhand passing. The activities carried out included observation, interviews with teachers, and start tests to assess students' abilities before taking action. The results of this stage will be the basis for determining student needs and designing actions to be taken in the next cycle. The following is the data from the first cycle assessment, namely the underhand passing soaring for class XI M4 students of State Senior High School 1 Tanjung Bintang:

Table 3. Start Test Results Data for Volleyball Underhand Passing Skills

Gender	1 Minute Bounce Underhand Pass Skills				
	Clear		Not Clear		
	Number of participants	(%)	Number of participants	(%)	
Famale	6	24%	19	76%	
Male	4	36%	7	64%	

Sources: Data processing, 2025.

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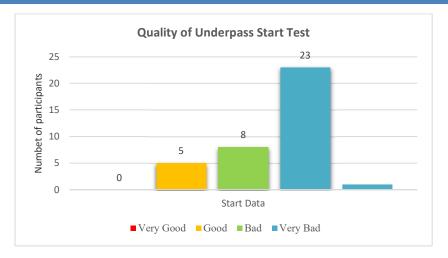


Figure 4. Start Test Results Diagram for Underhand Passing Skills

Table 3 and Figure 4, it can be seen that the volleyball underhand passing skills of male and female students are included in the very poor category, this is evident when the underhand passing test was carried out in the start test, the number of female students included in the completed category was less, namely 6 people out of a total of 25 female students (24%), while those included in the incomplete category were much more, namely 19 people out of a total of 25 female students (76%).

For male students, the number of participants included in the completed category was less, namely 4 people out of a total of 11 male students (36%), while those included in the incomplete category were much more, namely 7 people out of a total of 11 male students (64%). Based on the results of these data, it can be concluded that students in class XI M4 of State Senior High School 1 Tanjung Bintang are still very lacking in mastering basic volleyball underhand passing skills, so improvements are needed in the learning process.

b. Cycle I Actions

In the first cycle, the researcher implemented the action plan that had been prepared. The steps in the first cycle include planning, implementing actions, evaluating, and reflecting. The learning carried out is a group approach, six students with the best results in the start test are selected to be tutors in groups of five members. Students practice repeatedly on the basic technique of underhand passing so that they are more proficient and accustomed to doing it without making any significant mistakes. The researcher acts as a facilitator who corrects inappropriate techniques and motivators of student enthusiasm. During the implementation, observations were made on student involvement and their learning outcomes. At the end of the first cycle, an assessment was carried out, namely underhand passing to see if there was an improvement from the start conditions. The following is the data from the results of the first cycle assessment, namely underhand passing to overhand for class XI M4 students at State Senior High School 1 Tanjung Bintang:

Table 4. Data Results of Cycle I Volleyball Underhand Passing Skills

Gender	1 Minute Bounce Underhand Pass Skills			
	Clear		Not Clear	
Gender	Number of participants	(%)	Number of participants	(%)
Famale	10	40%	15	60%
Male	5	45%	6	54%

Sources: Data processing, 2025.

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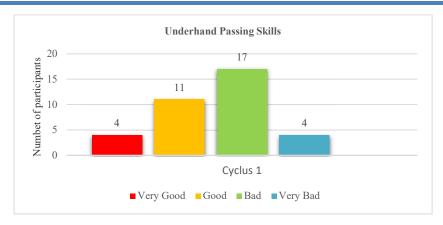


Figure 5. Diagram of Results of Cycle I of Volleyball Underhand Passing Skills

Table 4 and Figure 5, it can be seen that the volleyball underhand passing skills of female students are included in the category of less than good, this is evident when the underhand passing test was carried out in cycle I, the number of female students included in the completed category was less, namely 10 people out of a total of 25 female students (40%), while those included in the uncompleted category were much more, namely 15 people out of a total of 25 female students (60%).

For male students, the number of participants included in the completed category was less, namely 5 people out of a total of 11 male students (45%), while those included in the uncompleted category were much more, namely 6 people out of a total of 11 male students (54%), when doing underhand passing, many participants made mistakes in the position of contact so that when doing underhand passing, the ball that was hit was not hit on the wrist but on the palm of the hand, then the arms were not closed, the elbows were not straightened, and the knee position when doing underhand passing was not bent.

Based on the results of the data, it can be concluded that students of class XI M4 at State Senior High School 1 Tanjung Bintang are still lacking in mastering the basic skills of volleyball underhand passing techniques, so it is very necessary to improve students' skills as a form of learning outcomes in volleyball, especially in the basic techniques of volleyball underhand passing, so it is necessary to implement the second cycle.

c. Cycle II Actions

After reflecting on the first cycle, the researcher made improvements and adjustments to the methods used, then continued to the second cycle. In this cycle, learning was further refined based on feedback obtained from the previous cycle, by changing the variations of more interesting exercises, namely with a chain pattern. The stages of implementation, observation, and reflection were carried out again with more focus on improving students basic movements. At the end of the second cycle, an assessment was carried out, namely a bouncing underhand pass to see if there was an improvement from the start conditions. The following is the data from the results of the second cycle assessment, namely bouncing underhand passing for students of class XI M4 at State Senior High School 1 Tanjung Bintang:

Table 5. Data Results of Cycle II Volleyball Underhand Passing Skills

Gender		1 Minute Bounce Underhand Pass Skills			
	Clea	Clear		Not Clear	
Gender	Number of participants	(%)	Number of participants	(%)	
Famale	22	88%	3	12%	
Male	10	91%	1	9%	

Sources: Data processing, 2025.



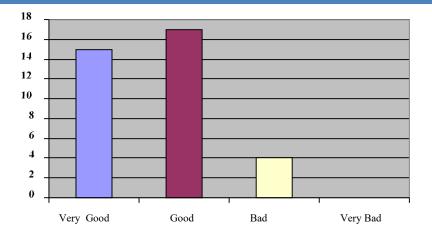


Figure 6. Diagram of Results of Cycle II of Volleyball Underhand Passing Skills

Table 5 and Figure 6, it can be seen that the volleyball underhand passing skills of female students are included in the very good category, this is proven when the underhand passing bounce test was carried out, the number of participants included in the completed category was greater, namely 22 people out of a total of 25 female students (88%), while those included in the incomplete category were fewer, namely 3 people out of a total of 25 female students (12%).

For male students who are included in the completed category, there are more, namely 10 people out of a total of 11 male students (91%), while those included in the incomplete category were fewer, namely 1 person out of a total of 11 male students (9%). This indicates that the learning method used has succeeded in improving students' underhand passing skills, so there is no need to continue the next cycle.

2. Discussion

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In the first cycle in the process of improving volleyball underhand passing skills with a group approach. There are 6 groups containing 6 members in each group, one student who has better underhand passing skills will be a tutor in the group. In this learning, it is useful for developing elements of motor skills and knowledge of volleyball underhand passing movements, getting the arm used to controlling the ball, and hitting the ball on the arm correctly. During the learning process, the researcher gave examples of correct movements to students, after which each group would do it repeatedly, this was done at the first meeting in cycle I and at the second meeting a test would be conducted to see the learning outcomes in the first cycle.

The obstacles that emerged in this learning process include, students do not understand how to do good and correct underhand passing of volleyball, students are still overwhelmed in controlling the ball that falls on the arm, arm movements are still stiff, and the level of seriousness of students in the learning process is still lacking. In the first test of volleyball underhand passing skills, all students experienced an increase from the start test, although the increase for each student was different and there were still many students who hit the ball too hard upwards, making it difficult to practice repeatedly. In this first cycle, there were 10 female students and 5 male students who achieved learning completion, namely with a success percentage of 40% for female students and 45% for male students.

Cycle II was carried out based on the results of reflection from the previous cycle. The researcher prepared a revised plan based on reflection on cycle I in order to obtain better results. In the second cycle, it was carried out by involving all students, both students who had passed the start test and the first cycle, this was based on the results of discussions with teachers, in order to perfect the basic movements of these students, and for students who had not completed it would be more focused on the second cycle so that later at the end of learning the increase in basic movement abilities could be seen.

In the second cycle in the process of improving volleyball underhand passing skills with variations of group exercises, to train in controlling the speed of the ball, the strength of the ball, eye coordination with the arm when doing underhand passing, improving



passing techniques and understanding the basic movements of volleyball underhand passing. Similar to the first cycle, the second cycle was carried out in two meetings and in the second meeting a test would be conducted to see the learning outcomes in the second cycle [18].

The obstacles that emerged in this learning process include, students are still stiff when moving their bodies from the start stage to the final stage [19]. After being done repeatedly, students began to show positive results, as seen from several students who were able to do underhand passing according to the specified aspects although there were some who still had to be directed. Proven by the increasing number of students who got scores above or equal to learning completion. From the test results in the second cycle, there were 22 female students and 10 male students who received scores above or equal to the learning completion of, namely with a success percentage of 88% for female students and 91% for male students, the increase that occurred from the first cycle to the second cycle was 48% for female students and 46% for male students.

IV. CONCLUSION

This study aims to improve the basic technical skills of volleyball underhand passing using the Project Based Learning learning model for class XI M4 students of State Senior High School 1 Tanjung Bintang in the 2024/2025 Academic Year. Based on the research results obtained are as follows:

- 1. In the start test carried out before entering cycle I, the completeness obtained by participants in volleyball underhand passing skills was very lacking with a success percentage range of <40%. For girls it was 24% and for boys it was 36%.
- 2. In cycle I which was carried out for one week with 2 meetings, the completeness obtained by students in volleyball underhand passing skills had increased but was still included in the less than good category with a success percentage range of 40%-55%, for girls it was 45% and for boys it was 54%.
- 3. In cycle II which was carried out for one week with 2 meetings, the completion obtained by students in the basic technical skills of underarm passing was in the very good category with a success percentage range of 80%-100%, for girls it was 88% and for boys it was 91%. 4. Based on the results of the volleyball underarm passing skills data in the start test, cycle I and cycle II showed a significant increase, namely entering the very good category with a success percentage range of 80-100%. For girls it was 88% and for boys it was 91%. So that in accordance with the learning objectives, namely the application of the Project Based Learning learning model in improving the volleyball underarm passing skills of class XI M4 students of State Senior High School 1 Tanjung Bintang was successfully carried out.

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