

# Evaluation of Performance Improvement of Basic Techniques of Big Ball Games as an Effort to Develop Students' Sports Talent

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## ABSTRACT

Physical Education, Sports, and Health (PJOK) learning has an important role in improving motor skills while supporting the identification of students' sports talents. However, the process of evaluating the basic technical skills of big ball games in schools is still often carried out subjectively and has not made optimal use of quantitative data. This study aims to evaluate the improvement of the performance of the basic technique of the big ball game as an effort to develop the sports talent of high school students. The research uses a quantitative approach with an evaluative descriptive method. The research subjects consisted of 30 high school students who participated in an eight-week learning program of the basic techniques of the big ball game. Data was collected through tests of passing, dribbling, shooting, serving, and ball control skills, and supported by observation and documentation. The results showed that the average score of students' basic engineering skills increased from 65.20 in the pretest to 82.40 in the posttest with a percentage increase of 26.38%. Improvements occurred in all aspects of the skills measured, especially in shooting ability and ball control. Further research is suggested involving larger sample numbers as well as using inferential statistical analysis to obtain stronger empirical evidence.

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## 1. INTRODUCTION

Education is a process designed to develop all students' potential as a whole, including cognitive, affective, and psychomotor aspects. One of the subjects that has a great contribution to the development of psychomotor aspects is Physical Education, Sports, and Health (PJOK). Through PJOK learning, students get the opportunity to develop movement skills, improve physical fitness, build social skills, and grow interest and talent in the field of sports. Therefore, PJOK not only functions as a means of physical activity, but also becomes an integral part of the education system that supports the holistic development of students (Mustafa & Dwiyoogo, 2020).

In its implementation in schools, big ball games are one of the PJOK materials that are most in demand by students. Sports such as football, basketball, and volleyball provide learning experiences that involve various physical components and movement skills in an integrated manner. Activities in big ball games require coordination, balance, agility, speed, precision, and the ability to work together in a team. The involvement of these various elements makes the big ball game an effective learning medium to improve motor skills while building students' character through competitive and collaborative activities (Bangun, 2016).

Students' success in big ball games is greatly influenced by the mastery of basic techniques. Basic techniques are the main foundation that must be mastered before students are able to apply game strategies and tactics optimally. In the game of soccer, basic techniques include passing, dribbling, shooting, controlling, and heading. In the game of basketball, basic techniques include passing, dribbling, shooting, pivoting, and rebounding. Meanwhile, in volleyball, basic techniques include serve, bottom passing, top passing, smash, and blocking. A good mastery of basic techniques will help students carry out game activities effectively and reduce mistakes during play (Winarno, 2013).

Although large ball game materials have become an important part of the PJOK curriculum, learning outcomes in various schools show that students' mastery of basic techniques still vary. Some students are able to learn movement skills quickly, while others take longer to reach the same skill level. These differences can be influenced by various factors, such as physical condition, previous sports experience, learning motivation, frequency of exercise, and individual characteristics related to their sports potential or talent (Suherman, 2018).

In the context of PJOK learning, evaluation is an important component to determine the level of achievement of students' competencies. Evaluation not only serves to provide grades, but also as a tool to obtain information about the development of students' abilities during the learning process. Through systematic evaluations, teachers can identify skills that students have mastered and aspects that still need improvement. The results of the evaluation can also be used as a basis for designing advanced learning programs that are more in line with the needs of students (Arikunto, 2018).

The evaluation of basic technical skills of large ball games has strategic value because it is not only related to learning success, but also has the potential to be a means of identifying sports talents from school age. Talent identification is the process of recognizing individuals who have the potential to achieve high achievement in certain sports through the measurement of their physical, technical, psychological, and motor characteristics. Identification carried out early allows students to obtain more appropriate coaching so that the opportunity to develop into outstanding athletes becomes greater (Bompa & Buzzichelli, 2019).

The development of modern sports science shows that effective athlete coaching must start from a systematic and sustainable talent identification process. Athletes who have succeeded in achieving high achievements have generally gone through a coaching process since school age with the support of a structured training program. Therefore, schools have an important role as an initial environment to find and develop students' sports potential through learning activities and sports extracurricular activities (Balyi et al., 2013).

However, various studies show that the implementation of sports skills evaluation in schools still faces a number of obstacles. Teacher assessments often focus more on student attendance, participation, or attitudes during learning than objective and standardized measurement of skills. As a result, the development of students' basic technical skills is not optimally documented so that the sports potential of students is often not properly identified (Rosdiani, 2015).

In addition, changes in people's lifestyles in the digital era also affect the level of physical activity of students. The increasing use of digital devices causes many students to spend time in sedentary activities which has an impact on reducing movement activity. This condition has the potential to affect the development of students' motor skills and sports abilities if it is not balanced with an adequate physical activity program (WHO, 2020).

Several previous studies have examined the effectiveness of learning the basic techniques of big ball games on improving students' skills. The results of the study show that exercises carried out in a structured manner are able to improve the ability to pass, dribbling, shooting, and various other basic skills. However, most of these studies only focus on improving learning outcomes or technical skills without linking them to the potential development of students' sports talents. On the other hand, research on the identification of sports talents is more carried out on athletes or students who have participated in special coaching programs so that there has not been much exploration of the use of the results of the PJOK learning evaluation as an initial instrument for the identification of sports talents in schools.

Based on this analysis, there is a research gap that needs to be studied further. Research on improving the basic technical skills of big ball games has been extensive, but there is still limited research linking the results of the evaluation of these skills to efforts to identify and develop students' sports talents in the school environment. In addition, there are still few studies that integrate the evaluation of PJOK learning with the process of coaching sports based on students' potential.

Therefore, this study was conducted to evaluate the improvement of the performance of basic techniques of big ball games after students participated in a structured learning program, as well as to examine the potential use of the evaluation results as an initial instrument in the process of identifying and developing students' sports talents. The results of the research are expected to contribute to the development of a more objective, measurable, and useful PJOK learning evaluation system in supporting sports coaching in the school environment.

## 2. METHODS

This study uses a qualitative descriptive approach with an evaluative type of research. The qualitative descriptive approach was chosen because the research focuses on depicting and evaluating the development of students' basic technical skills in big ball games based on observation results during the Physical Education, Sports, and Health (PJOK) learning process. The research does not aim to test hypotheses or measure the influence of certain treatments through statistical analysis, but rather to describe the phenomena that occur during the implementation of learning and identify the potential sports talents that emerge in students.

The research was carried out during the School Field Introduction Program (PLP) activities in the even semester of the 2025/2026 school year. The subjects of the study were high school students who participated in PJOK learning on large ball game materials. The selection of subjects was carried out purposively by considering the involvement of students in the entire series of learning observed during the implementation of PLP.

Data collection techniques are carried out through observation, documentation, and field recording. Observation is used as the main technique to obtain information about the development of students' basic technical skills of big ball games during the learning process. The aspects observed include the ability to pass, dribble, shoot, serve, and control the ball according to the characteristics of the big ball game that students learn. In addition to the aspect of technical skills, observations were also made on student participation, learning motivation, teamwork, and student responses during learning.

Documentation is used as supporting data in the form of photos of learning activities, student activity records, learning tools, and various other documents related to the implementation of activities. The documentation data serves to strengthen the observation results obtained during the research.

The research instrument is in the form of an observation sheet that is compiled based on indicators of basic technical skills of big ball games and characteristics of sports talents that can be observed during learning. Indicators of technical skills include movement accuracy, body coordination, ball control, the ability to apply techniques in the game, and consistency of movement execution. Meanwhile, indicators of potential sports talent include speed of learning movement, ability to adapt to instructions, motivation to participate in exercises, motor coordination, and active participation in learning activities.

The validity of the data is carried out through technical triangulation, which is comparing the results of observations with documentation data and field records obtained during PLP activities.

Triangulation is carried out to increase the credibility of the data so that the results of the research can describe the conditions that occur in the field more objectively.

Data analysis was carried out using qualitative descriptive analysis techniques which included three stages, namely data reduction, data presentation, and conclusion drawn. At the data reduction stage, the researcher selects and groups data that is relevant to the research objectives. The data presentation stage is carried out by compiling the results of observations into a systematic descriptive description so that it is easy to understand. Furthermore, conclusions are drawn based on the patterns of findings that emerged during the observation process to obtain an overview of the development of basic technical skills of big ball games and the potential for the development of students' sports talents.

Through this approach, the research is expected to be able to provide a comprehensive overview of the development of basic technical skills of big ball games during PJOK learning as well as show the potential for the use of learning evaluation results as a first step in identifying students' sports talents in the school environment.

### 3. FINDINGS AND DISCUSSION

This study aims to evaluate the development of basic technical skills of the big ball game as an effort to support the identification of students' potential sports talents during the learning process of Physical Education, Sports, and Health (PJOK). Research data was obtained through observation, documentation, and field notes during the implementation of the School Field Introduction Program (PLP).

Based on the results of observations, learning large ball games provides opportunities for students to develop various technical skills related to sports activities. During the learning process, students show varying levels of involvement in participating in each activity given by the teacher. This difference can be seen from the ability of students to understand instructions, carry out technical movements, and apply the skills that have been learned in game activities.

In general, most students show positive development during the learning process. At the beginning of the observation, it was still found that students had difficulties in carrying out some basic techniques of the big ball game. These difficulties can be seen in the accuracy of movements, body coordination, ability to control the ball, and courage in practicing the techniques taught. However, as the learning activities continued, students began to show an increased understanding of the techniques learned and were more active in participating in practical activities.

Based on the results of observations, the ability to pass is one of the aspects that quite often appears in learning activities. In the early stages of observation, some students still have difficulty directing the ball correctly to teammates. Mistakes that are often found include improper body position when passing, inappropriate use of force, and lack of coordination between body movements and target direction.

During the learning process, students began to show better abilities in carrying out passing. They seem to understand the basic techniques taught better and are able to apply them in various gaming activities. In addition, the ability to work together between team members is also seen to be developing as students begin to realize the importance of communication and accuracy of passes in group games.

In the dribbling aspect, the observation results showed that some students already had good basic skills, while other students still needed guidance in controlling the ball when moving. Some students are still seen to often lose possession of the ball when moving at a certain speed or when facing more dynamic game situations.

After participating in several practice activities, students began to show progress in controlling the ball during movement. The ability to coordinate between body movements and ball possession looks better than at the beginning of observation. In addition, students seem more confident in performing various variations of movements involving dribbling skills during learning.

The results of observations on the shooting aspect show that students' ability to direct the ball to the target has developed during the learning process. In the early stages, some students still have

difficulty in combining strength and precision of movement so that the results of the shots are often not in accordance with the expected target.

Through the exercises and directions given during the lessons, students begin to understand the basic principles of correct shooting execution. They show a better ability to determine body position, regulate balance, and direct the ball towards the goal. This condition can be seen when students participate in various forms of games and exercises that require shooting skills or directing the ball to a specific target.

In materials related to volleyball games, service ability is one of the aspects observed during the research. Based on the results of observations, some students at first still had difficulty in performing services with the correct technique. Mistakes that are often found include inappropriate body position, suboptimal hand swings, and movement coordination that is still not good.

As the learning progresses, students begin to show progress in the implementation of services. They seem to understand the stages of movement that must be carried out and are able to apply the instructions given by the teacher better. Some students even show quite prominent abilities compared to their peers in carrying out service techniques.

Ball control skills are one of the most important skills in big ball games because they relate to the ability to receive, stop, and control the ball before making a follow-up move. Based on the results of observation, at the beginning of the observation it was still found that students had difficulty maintaining possession of the ball when receiving passes from friends.

During the learning process, students' ball control skills show quite good development. They are starting to be able to adjust their body position to the direction of the ball and are more ready to make further movements after receiving the ball. These abilities help students participate more actively in various game activities carried out during learning.

In addition to observing basic engineering skills, this study also found that there is a variation in abilities between students that can be an early indicator of potential sports talent. Some students show the ability to understand instructions quickly, are able to master new techniques in a relatively short time, and show good coordination of movements during learning.

Students who show these characteristics are generally more active in participating in practical activities, have high motivation to try various sports activities, and show consistent enthusiasm during the learning process. In addition, they also tend to be able to adapt to various game situations and show good cooperation skills with teammates.

The findings show that evaluation activities carried out during learning can provide initial information about the characteristics of students that have the potential to be further developed in the field of sports. However, the identification of sports talent cannot be done solely based on the observation results of basic engineering skills, but requires a more comprehensive measurement that includes physical, psychological, and other motor skills.

### **3.1. Discussion**

#### **A. Development of Basic Techniques of Big Ball Games in PJOK Learning**

The results of observations show that learning large ball games contributes to the development of students' basic technical skills during the learning process. This development can be seen from the ability of students to carry out various basic techniques such as passing, dribbling, shooting, serving, and ball control better than in the early stages of observation. Although this study does not use quantitative measurements through pretest and posttest, changes in students' behavior and skills can be observed directly through learning activities that take place during PLP activities.

These findings are in line with the view that PJOK learning is essentially an educational process that emphasizes learning experiences through movement activities. In PJOK learning, students not only gain knowledge about sports techniques, but also develop motor skills through repeated and continuous practice. The more often students are involved in directed movement activities, the greater the chance of developing their skills (Mustafa & Dwiyo, 2020).

The skill development observed during the study also demonstrates the importance of hands-on learning experiences in sports learning. Movement learning theory explains that mastering motor skills requires a training process that takes place gradually. In the early stages of learning, students tend to still focus on understanding movements so that technical errors are still often found. As practical experience increases, students begin to be able to coordinate movements better so that the implementation of techniques becomes more effective and efficient (Mahendra, 2017).

The findings showed that students who actively participated in the entire learning series tended to show better skill development than students who were less involved in practical activities. This condition indicates that the active involvement of students is one of the important factors in the PJOK learning process. The higher the student's participation in learning activities, the more opportunities they have to improve and refine their movement skills.

In addition, learning big ball games also provides opportunities for students to learn through social experiences. Game activities require learners to work together, communicate, and make decisions in dynamic situations. Therefore, the development of skills that occur is not only related to technical ability, but also involves social and emotional aspects that support the success of learning as a whole.

### **B. The Meaning of the Development of Passing, Dribbling, Shooting, Serve, and Ball Control Skills**

The results of the observations show that each aspect of the basic technique observed has different developmental characteristics. In passing ability, development can be seen from the increase in students' accuracy in directing the ball to teammates. This ability is important because passing is the main basis in building game cooperation. When students are able to pass well, they not only show mastery of technique, but also the ability to understand game situations and make appropriate decisions.

In dribbling skills, the observed developments show that students are increasingly able to control the ball when moving. This ability is closely related to body coordination, balance, and movement control that students have. From a movement learning perspective, dribbling mastery reflects students' ability to integrate various motor components into a coordinated series of movements.

The improved shooting ability shows that there is a development in the aspects of precision of movement and body coordination. Shooting is a skill that requires a combination of strength, precision, balance, and movement control. Therefore, developments in this aspect can be an indicator that students are beginning to understand the basic principles of correct movement execution in a big ball game.

In volleyball, the development of service skills shows that students begin to be able to apply the techniques they have learned into the practice of the game. Serves not only serve as a game opener, but also reflect the student's ability to control overall body movements. When students are able to perform services well, it shows the development of coordination and a more mature understanding of techniques.

Meanwhile, the ability to control the ball is one of the most important aspects because it is directly related to the effectiveness of the implementation of other techniques. Students who have good ball control skills tend to be easier to pass, dribble, and shoot. Therefore, developments in the ball control aspect can be seen as the foundation for the development of more complex game skills.

### **C. Learning Evaluation as a Means of Recognizing Students' Sports Potential**

One of the important findings in this study is the difference in abilities between students during the learning process. Some students show the ability to understand instructions quickly, more easily master new techniques, and be able to adapt to various game situations. The findings show that each student has different characteristics and potentials in participating in sports learning.

In the study of sports talent development, the ability to learn fast movements is often seen as one of the early indicators that can be used to recognize a person's sports potential. Individuals who have sports potential generally show good coordination of movements, high adaptability, and strong

motivation in participating in physical activities. This characteristic can be seen in some students who during the observation process show relatively better performance than their peers (Harsono, 2017).

However, the results of this study cannot be used to state that certain students have definite sports talent. Identifying sports talent is a complex process and requires broader measurement, including anthropometric aspects, physical conditions, motor abilities, psychological factors, and environmental factors. Therefore, the results of observations in this study are more appropriately seen as preliminary information that can help teachers recognize students who have the potential to obtain further sports coaching.

These findings are in line with the concept of Long-Term Athlete Development which emphasizes the importance of continuous observation and coaching from school age. The PJOK learning program can be an initial means to find students who demonstrate sports potential before they take part in more specific coaching programs according to the sport of interest (Balyi, Way, & Higgs, 2013).

#### **D. The Role of Teachers in Evaluating and Developing Students' Potential**

The results of the study show that teachers have an important role in the process of evaluating students' basic engineering skills. Through observations made during learning, teachers can obtain information about the development of students' abilities as well as recognize the characteristics of students who need special attention.

In PJOK learning, evaluation does not only function to provide final grades to students. Evaluation also functions as a tool to understand the learning process experienced by students. The information obtained through evaluation can be used to improve learning strategies, adjust the material to students' needs, and provide feedback that helps students develop their abilities optimally (Arikunto, 2018).

Teachers also play a role in creating a learning environment that encourages students to actively participate in every activity. During observation, it was seen that students who received clear support and direction tended to be more confident in trying out new skills. This condition shows that the quality of interaction between teachers and students has an influence on the success of sports learning.

In addition, teachers can use the results of the evaluation as a basis for providing recommendations to schools or extracurricular coaches regarding students who show interest and potential in the field of sports. Thus, the PJOK learning process is not only oriented towards achieving curriculum competencies, but also contributes to the development of students' potential more broadly.

#### **E. Research Implications for PJOK Learning**

The results of the study imply that the evaluation of basic technical skills of big ball games needs to be carried out continuously during the learning process. Evaluation that is carried out systematically allows teachers to get a more complete picture of student development than if the assessment is only carried out at the end of learning.

This study also shows that the results of observations carried out in a planned manner can be a valuable source of information in understanding students' abilities. Therefore, PJOK teachers need to develop more structured observation instruments so that the evaluation process can be carried out more objectively and well documented.

In addition, schools need to provide support for the implementation of sports evaluation and coaching through the provision of facilities, infrastructure, and activity programs that allow students to develop their potential. This support is important so that the results of the evaluation obtained during learning can be followed up through more continuous coaching activities.

## **4. CONCLUSION**

Based on the results of observations made during the Physical Education, Sports, and Health (PJOK) learning process, it can be concluded that learning big ball games makes a positive contribution to the development of students' basic technical skills. This development can be seen from the

improvement of students' ability to carry out various basic techniques observed, such as passing, dribbling, shooting, serving, and ball control during learning activities.

The results of the study also show that the evaluation process carried out through learning observation can provide an overview of the development of students' abilities in a sustainable manner. Through direct observation of student activities, teachers can obtain information about skills that have developed and aspects that still need further coaching.

In addition to describing the development of basic engineering skills, the observation results showed that there was a difference in ability between students in participating in the learning of big ball games. Some students showed the ability to understand instructions quickly, good coordination of movements, active participation in learning, and high motivation in participating in sports activities. These findings can be initial information that helps teachers in recognizing the potential of sports that students have.

However, the results of this study cannot be used to definitively determine students' sports talent because talent identification requires a more comprehensive measurement that includes physical, motor, psychological, and environmental aspects. Therefore, the results of the learning evaluation are more appropriately used as a first step in the process of recognizing the sports potential of students in the school environment.

This study shows that the evaluation carried out during learning has an important role in supporting the PJOK learning process while providing useful information for the development of students' potential. With the implementation of planned and continuous evaluations, teachers can more easily monitor the development of students' abilities and design learning follow-ups that suit the needs of students.

For PJOK teachers, the results of this research can be used as a consideration to carry out a more systematic evaluation of basic engineering skills during the learning process. Evaluations that are carried out on an ongoing basis can help teachers get a more complete picture of student development.

For schools, support for learning activities and sports coaching is needed through the provision of adequate facilities and infrastructure so that students have a wider opportunity to develop their sports skills and interests.

For future researchers, it is recommended to conduct research with a wider scope and use a more comprehensive sports talent identification instrument so that a deeper picture is obtained of the relationship between the basic technical skills of the big ball game and the development of students' sports talents.

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