IMPLEMENTATION ON THE INNOVATIVE LEARNING TO IMPROVE MOTIVATION AND VOLLEYBALL LEARNING OUTCOMES OF EIGHTH GRADE STUDENTS FROM CLASS OF 8D AT SMP NEGERI 12 SURAKARTA.

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Abstract

The This study aims to improve learning activities, learning motivation, and learning outcomes through modification of plastic sponge balls for students of SMP Negeri 12 Surakarta. This research is a Classroom Action Research (PTK) conducted in two cycles. The research subjects were 8D class students of SMP Negeri 12 Surakarta, totalling 32 people. The research instruments used were observation guidelines, learning activity observation sheets, learning motivation questionnaires, process assessment observation sheets and volleyball learning outcomes. Indicators of success are learning activities and learning outcomes of at least 85% of the total number of students complete learning (KKM value 75). The data analysis technique used is quantitative descriptive analysis. The results showed that through modification of plastic sponge balls on learning activities and learning outcomes of volleyball. This is indicated from the learning activity data showing an increase in cycle two with the initial data there were 14 students stated that they were complete, 18 students stated that they were not complete thus in cycle II with the use of modified plastic sponge balls there was an increase in this cycle, 30 students stated that they were complete, 2 students stated that they were not complete thus learning could be concluded and classified as successful in the research category. Learning for students who have not completed the learning will be carried out outside of class hours with the permission of the Penjaskes teacher. Based on the results of the study, it shows that classical completeness has been met.

Keywords: volleyball, learning activities, motivation questionnaire, learning outcomes

Introduction

Sagita Mawaddah, F., & Keguruan dan, F. (2023) The independent learning program launched by the ministry of education (Kemendikbud) is one of the efforts to improve the quality of education in Indonesia, because the quality of education reflects the civilization of a nation. The quality or good quality of education is what causes the emergence of quality and resilient resources to build the nation's civilization. According to Hasmarita (2018), learning is a dynamic process that involves the active participation of teachers, students, and learning materials in an educational environment, with the aim of achieving educational goals. Education is structured to facilitate the achievement of specific learning objectives, which include cognitive (knowledge), affective (attitude), and psychomotor (skills) domains. The characteristics of one child are different from other children. According to Estari, A. W. (2020) student characteristics include: ethnicity, culture, social status, interests, cognitive development, initial abilities, learning styles, motivation, emotional development, social development, moral and spiritual development, and motor development.

Permendikbud. (2022) in organizing education quality and quality, of course, the government has a rule, which is a reference for education providers. for education provider institutions. Educational assessment standards are a reference or guideline for educators, education units, and the government in carrying out assessments of student learning outcomes. Teachers have an important role in achieving the unity of physical education, sports and health goals. Teachers have the cohesion and purpose of conveying knowledge, providing

direction, teaching, and facilitating learning. Therefore, the importance of skilled educators facilitating successful learning paramount. Various studies have shown that the influence of instructors on student performance or learning outcomes substantial (Suwardi & Farnisa, 2018). Tatlah, IA, Masood, S., & Amin, M. (2019) parents who have high educational expectations tend to devote more time and resources to their child's learning. This may create an environment good learning and improve the child's academic performance.

According to Bumburo, B., Ita, S., Wanena, T., Wandik, Y., & Putra, M. F. P. (2023) stated that the development of the volleyball game was very prominent during the lead-up to the 1962 Asian Games IV and Ganefo I 1963 in Jakarta, both for men and for women. Volleyball matches entered the official event in PON II 1951 in Jakarta and POM I in Yogyakarta in 1951. After 1962 the development of volleyball was like mushrooms growing in the rainy season with many volleyball clubs in all corners of the country.

The curriculum for grade VIII junior school students includes high Core Competencies and Basic Competencies in physical education, sports, and health. Students must master 10 different Basic Competencies, which are divided into two These competencies include semesters. various activities including big ball games, small ball games, athletics, martial arts, floor gymnastics, rhythmic movement activities, swimming, physical fitness development, and improving healthy eating patterns and balanced nutrition (Irmansyah et al., 2020).

Volleyball is a fundamental skill required to excel in ball sports. Volleyball is a competitive sport that pits two teams in a specific area separated by a net. Ilham et al. (2019) asserted that students must acquire the skills necessary to play volleyball, including down pass, up pass, smash, serve, and block. When teaching volleyball, it is important for instructors to guarantee that students are actively involved both individually and in groups.

Based on observations of students in volleyball learning in class VIII D SMP Negeri 12 Surakarta, it is known that students show a limited level of involvement in the educational process. Based on input from the teacher, the learning activities of VIII D students are still relatively low, especially in the field of

volleyball games. This can be seen from the lack of enthusiasm of students due to the weight of the ball and the discomfort felt when performing technical movements or serving. In addition, students are less active because the standard-sized volleyball provided at school is of premium quality so that it gets harder when inflated. There are significant shortcomings in the volleyball learning process compared to other subjects. Therefore, it is imperative to improve make modifications to effectiveness of the educational resources provided in the domain.

This session will familiarize students with innovative learning by utilizing plastic sponge balls as educational aids. Lack of fun activities, unsupportive learning environment, and reduced motivation students hinder the learning process, leading to sub-standard student learning outcomes and poor learning is not effective.

Of the entire group of 32 students, exactly 43.75% or 14 students had obtained a score of 75 which met the minimum criteria for participation and qualified them as eligible study participants. In contrast, 56.25% or 18 students did not meet the minimum completion requirement.

Results observation revealed problems related to the acquisition of volleyball skills in students of class VIII D SMP Negeri 12 Surakarta.

Consequently, educators must use strategies and ingenuity to overcome any challenges that occur. Alternative approaches, such as different methods and tools, are essential to improve the learning process. Utilizing appropriate learning methods and adapting learning materials or media to meet individual needs can serve as a way to overcome challenges in teaching volleyball. Some of the problems experienced by students are the results of interviews or observations of the learning process of volleyball games in class conventional VIII using vollevball D equipment have not achieved optimal effectiveness. Therefore, adjustments must be applied in the learning process to ensure it reaches a satisfactory level, Only 14 students who reached the minimum completeness value on the cognitive and psychomotor components, this shows that student learning outcomes have not met the classical completeness standards, Students experience a decrease in happiness and motivation to play volleyball during the learning process, The ball is heavy and causes discomfort when performing technical movements or strokes. Students are less active

because standard size volleyball (SNI) is considered high quality and is used in schools, but feels stiff when inflated. The air released from the volleyball becomes heavier.

The purpose of using this sponge plastic ball as an instrument is to facilitate the acquisition of volleyball skills, because it is lighter than a standard volleyball. The goal is to improve the academic achievement of Class VIII D students of SMPN 12 Surakarta (Merta, 2022) by applying the guided inquiry learning paradigm to overcome the difficulties encountered in volleyball game sessions. The innovation that will be used is called Voldalaska, namely volleyball Surakarta. With this, the researcher made a research title with "the application of innovative learning to increase motivation and learning outcomes of class viii d volleyball at smp negeri 12 Surakarta".

According to Hamzah B Uno. (2008) motivation is the basic impetus that moves an individual to do an action. Therefore, whether someone's actions are good or bad depends on the motivation that drives these actions. this makes motivation one of the interesting sciences used as a variable to be studied. Motivation is the basic impetus that moves an individual to do an action. For this reason, the good and bad of a person's actions really depend on the motivation that drives these actions. this makes motivation one of the interesting sciences used as a variable to study. Attention plays an important role in the world of education because it has the ability to increase students' enthusiasm for learning. Focus on the acquisition of knowledge that occurs in students when educational content is aligned with their individual needs. Sjukur (2013: 75) defines learning motivation as the tendency of students to carry out learning activities with the aim of achieving optimal learning results.

Lukman. (2019) the situation above makes a teacher often not eager to teach because he sees his students do not want to learn and it turns out that the problem is that students do not have motivation or driving force in learning. Facing such a situation, a professional teacher must realize that the enthusiasm and passion for student learning is not only determined by the s t u d e n t s themselves, but he must also play a role as a motivator.

Congress, F. W. (2021) revealed that professional teachers / trainers are required to

can display their expertise in front of learners. One of these skills is the ability to deliver lessons to learners. To be able to deliver lessons effectively and efficiently, teachers/trainers/coaches need to be familiar with various types of learning strategies so that they can choose which strategy is most appropriate for teaching a particular field of study.

Dianti, Y. (2017) good character education has several important tasks that must be completed so that students have good character. In an effort to build and strengthen the nation's character, several values are realized, namely religious, honest, tolerant, disciplined, creative, hardworking, independent, democratic, curiosity, national spirit, love for the country, respect for achievement, kind friendly. communicative, peaceful, love to read, care for the environment, social and responsible.

Lestari (2021) highlights the need for a sports and health specialist physical education teacher who has a thorough understanding of the information and abilities that students should acquire. According to Destriani et al. (2021), volleyball is a team sport in which two teams, each consisting of six players, engage in competitive play against each other. The goal is to pass the ball a maximum of three times before it crosses the net, using a variety of approaches and tactics to secure victory. Volleyball includes several important strategies, including serving, passing, smashing and blocking. Playing volleyball collaboration would be a challenge as the game requires players to collaborate to successfully direct the ball to the opponent's court and prevent it from landing on their own.

According to Fernanda, M. R. O., Bekti, R. A., & Muharram, N. A. (2024) passing is a deliberate action taken to provide constructive feedback to colleagues. Effective passing can also provide a strategic advantage in defense after receiving a strong smash. Passing involves four actions: passing, under passing, blocking. Blocks are used to obstruct an enemy's powerful attack. Blocking involves the use of active hand movements, such as sliding the hand to the left or right to block, or movement to block. passive hand, where the player can also raise his hand without any further movement. The learning model using learning aids indirectly demands the creativity of an PE teacher to create c r e a t i v e, effective, and innovative learning so that it creates a fun effect. Learning aids are an important part of the implementation of learning to improve the learning outcomes of bolavoli passing according to the opinion (Sujarwo, 2021).

The key skills required to succeed in the

game of volleyball are serving, low passing, high passing, blocking and smashing.

Winarno (2018) emphasizes that serving is the first action that starts a volleyball match, which serves as the opening offensive move for the team that starts the service. Masega, R. E., & Kristiyandaru, A. (2016) The existence of Physical Education, Sports, and Health (PJOK) in schools is very much needed, in addition to improving physical fitness but also providing adequate movement and also instilling positive values so that they can be applied in everyday life : The player takes a position behind the back line. with the left foot slightly in front of the right foot, or vice versa if the server is left-handed, Place the ball in the palm of the left hand, or in the palm of the right hand if the server is right-handed, Push the ball vertically to a height ranging from 50 centimeters to 1 meter simultaneously, Position the hands behind the back, with the left hand for left- handers, Once the ball reaches waist height, hit the ball by swinging the arm forward and making contact with it. Condition of low skill

Fatchur Rochim, M. (2023) students' lower passes and limited school infrastructure in volleyball games need serious attention. According to Anggi Riusman. (2020) states that lower passing is an important point in the game of volleyball because this lower passing plays a very important role in defending the attacks carried out by the opposing Implementation of Lower Passing: The body should be positioned in an upright or slightly bent position, with the distance of the feet placed equal to the width of the shoulders, the knees should be slightly bent, while the arms should be pressed together in front of the body with the arms straightened in a vertical position to the body. down, The palm of one hand is placed on the palm of the other hand, Raise the arm, hit the ball at hip height. Upper Passing Implementation: Toser uses this approach to position the spikes. The principle of passing over can be summarized as follows: Maintain an upright or flexed posture with the feet positioned at a distance equal to the width of the shoulders, Take a slightly flexed position with the knees, Place your hands on top with the fingers slightly spaced apart, Tap the ball slowly with the hands from above, and then push it quickly upwards with maximum speed.

According to Begum, P., & Bhalla, S. (2022). food intake can affect the performance of volleyball athletes: Athletes who have a good nutritional status will have enough energy to train and compete, a balanced nutritional intake can help athletes reduce fatigue, risk of disease, and injury, athletes whose daily nutritional intake is

not met can have difficulty performing aerobic activities regularly.

According to Muskanan (2015), every motivation is closely related to certain goals and principles. The importance of a goal for an individual is directly correlated with the intensity of his motivation, making motivation a very beneficial factor in encouraging a person's activity or behavior. The purpose or role of these themes is: Motives stimulate a person to act or behave. Junaidi, J. (2019) the use of learning media in the teaching and learning process can arouse new interests and desires, arouse motivation and stimulation of learning activities, and even have psychological effects on learners. Motivation functions as a catalyst or engine that energizes a person to complete a job, Purpose determines the especially activities, course of towards achievement, a goal or ideal, Motive determines our actions.

According to Sardiman AM (2003: 83) as cited in (Rozi et al., 2023), motivation has the following characteristics: Shows perseverance in handling a matter (able to work consistently and without stopping until completion), Shows resilience in the face of challenges (persevering and not giving up easily). Intrinsically motivated to pursue optimal performance and not easily satisfied with the achievements achieved, Get fun in identifying and solving problems. Sodikin and Yono (2020) emphasized that sponge ball aids serve to replace or eliminate certain components. However, the main purpose of sponge plastic ball aids is to consistently generate and present new material, thereby facilitating a distinctive and interesting learning experience for students. In physical education learning, namely volleyball games, a plastic ball coated with sponge material is used as equipment.

This ball has characteristics such as being lighter and easier to use for volleyball training than a regular volleyball, and is made using typical volleyball materials. The volleyball game involves the use of a plastic sponge ball to minimize impact on the hands due to its lightweight nature. It is expected that students will show enthusiasm in participating in this educational endeavor. Manan & Bachtiar (2017: 21) modification is the replacement or reduction of certain elements, but specifically modification is an effort made to create and display something new, unique and very attractive. In learning physical education, especially volleyball games, the tool used is a modified ball, this ball has characteristics including being lighter than a volleyball and made of plastic balls coated with sponge or duct tape with a concept similar to the

original Manan & Bachtiar (2017: 21). The ball used will be given an additional cork so that the ball is not too light and when used comfortably.

No	Type of Ball used	Ball Weight	Diameter
1	Premium SNI Volleyball	260-280 Grams	65Cm - 67 Cm
2	Modified Volleyball	185-200 Grams	83Cm-120 Cm

According to Cahyadi, E., Hariyanto, A., & Kartiko, D. C. (2021), the learning process is often oriented towards the completion of learning material only, not the completion of learning materials.guided inquiry learning, as used in this study, is a teaching method that provides guidance, instruction, and information to students throughout the learning process. Guided inquiry learning, as used in this study, is a teaching method that provides guidance, teaching, and information to students throughout the learning process. The choice of learning model by the instructor greatly determines the achievement of learning objectives in the learning process Nasution, S. W. R. (2018). The guided inquiry learning approach is one type of inquiry-based learning where students are given the opportunity to study and research a problem independently and methodically. The role of the teacher or facilitator is to guide students by choosing topics, asking questions, and providing materials.

Method (for original research)

Type of Research

The approach with the modification of plastic sponge ball tools in research is a scientific way to get data so that it can obtain certain objectives and uses in research activities. In terms of data in the field, this research uses quantitative analysis. The classroom action research approach with quantitative analysis is research that refers to numerical data without any new discoveries. The results of quantitative analysis emphasize data containing numbers. The type of r e s e a r c h used in this research is field research (field research) is research that emphasizes the use of quantitative analysis.

This research is conducted in depth and covers the entire condition of the object that occurs in the field. In this study, researchers chose the type of field research with quantitative analysis.

Time and Place of Research

The research was conducted at SMP Negeri 12 Surakarta which is located at Jl. A. Yani No. 370, Kerten, Laweyan District, Surakarta City, Central Java. This research will be conducted on students of class VIII D on September 1 - 30, 2024.

Research Subject

The subjects in this study were all students of class VIII-D SMP Negeri 12 Surakarta in the 2024 academic year, totaling 32 students with a division of 16 male students and 16 female students who will be conducted research at SMP N 12 Surakarta.

Data Source

Manan Abdul, B. (2017) modification is considered as one of the things that can help teachers during the process of teaching and learning activities with the limitations that schools have or the needs needed by students during learning activities. The data sources that will be used in this study, researchers will use two data sources, namely:

1.Students

As an object to get data about the learning outcomes of lower service, lower passing, upper passing on volleyball with the application of modified plastic sponge ball aids to improve learning outcomes and motivation in learning big balls in class VIII D students of SMP N 12 Surakarta in the 2024 school year.

2.Teacher

As a trigger to monitor progress level the success of learning in students with the application of modified plastic sponge ball aids to improve the learning outcomes of volleyball in class VIII A DSMP N 12 Surakarta in the 2024 school year.

3.Researcher

As an observation to determine the accuracy of success in research on lower service, lower passing, upper passing on volleyball with the application of modified plastic sponge ball aids to improve volleyball learning outcomes in class VIII D students of SMP N 12 Surakarta in the 2024 school year.

Data Collection Methods and Instruments

Purnomo, B. H. (2020) Classroom action research or PTK is basically a small scale research that is used to diagnose specific problems (a specific context) and try to solve a problem in a particular context, such as in learning activities.

Guntur, G., Sukadiyanto, S., & Mardapi, D (2014) in process assessment a teacher can observe how the accuracy of the implementation of student movements in the preparation stage when going to play the ball in the form of student skills in preparing the initial posture of the body, initial motion, ball contact motion and further

motion according to the technique or method to be used in playing the ball.

In the Assessment Guide for High School quoted in the book of the Directorate General of Primary and Secondary Education. (2015) states that assessment is the process of collecting and information to measure processing achievement of student learning outcomes. The implementation of assessment in schools refers to Educational Assessment Standards and other relevant assessment regulations, namely criteria regarding the scope, objectives, benefits, mechanisms. principles. procedures. instruments for assessing student learning outcomes Researchers use interview methods, motivation exams observation, (tests), questionnaires, documentation according to the information needed. While the research instrument is the researcher himself with the support of interview, observation, test (test) and documentation guidelines. According to Fauziah, A., Sobari, E. F. D., & Robandi, B. (2021) the data obtained can be used to make decisions about the content and methods of teaching, to make decisions about the classroom climate, and to give grades.

Data Validity Test

So that the accuracy of the data can be guaranteed, the researcher will conduct a data validity test. The data validity test is used as a form of checking the correctness of the data generated by the researcher so that valid and accountable data can be obtained. The data validity test used in this study is triangulation. According to Sugiyono (2014), "Validity shows the degree of accuracy between the data that actually occurs on the object and the data that can be collected during research. There are two triangulations, namely data triangulation and methodological triangulation". Triangulation is grouped into 2, namely data triangulation.

Triangulation is research using a variety of different data sources so that it will produce concrete data. So that this data will be easier to understand, Triangulation of methods can be done by a researcher by collecting different data with one goal, namely producing the same data source. Collecting different data will get accurate results related to the subject (observation, tests, interviews and documentation).

Data Analysis Technique

According to Arikunto (2016), the steps of the in analyzing quantitative data are as follows: 1. Summarized, compared with the amount to be obtained and obtained percentage 2. Summarized, clarified so that it becomes a sequence of research data, for the next step a table is made, and the

final step is the final result of the research.

Result and Discussion DISCUSSION

Based on the research that has been conducted, the researcher found information about the application of innovative learning to increase the motivation and learning outcomes of volleyball class viii d at smp negeri 12 Surakarta. The class action research can be explained as follows: This meeting can be planned in four meetings. The first week of training with plastic sponge ball modification aids, then in the second week the initial test of knowledge and skills of lower service, lower passing, upper passing on volleyball with the application of modification of plastic sponge ball aids, then in the third week of training with modification of plastic sponge ball aids lower service, lower passing, upper passing on volleyball with the application of modification of plastic sponge ball aids, and in the fourth week the final value of knowledge and skills about lower service, lower passing, upper passing on volleyball with the application of modification of plastic sponge ball aids and written tests.

Researchers provide an 80-minute time allocation as well as the PE teacher at SMP N 12 Surakarta with a time division of 15 minutes for warm-up, 50 minutes for core learning, and 15 minutes for cooling down. Stages in data collection are:

a. Preparation Phase Initial Survey

In this activity, the first stage will be carried out, namely school observation by interviewing the PE teacher at SMP N 12 Surakarta or the class that will be studied for class action research. Observed the extent of the implementation of learning techniques.

- b. Information Selection Stage, Preparation of Instruments and Tools The activities to be carried out at this stage are:
 - 1). Determine the research subject.
 - 2). Prepare research tools and instruments.
- c. Data Collection and Action Stage.

At this stage, data collection and action will be carried out which consists of the following:

- 1). Selecting provisions according to the lesson plan.
- After completion, the final conclusion of the research was made as the success of the subject.

d. Data Analysis Stage

At this stage of analysis that will be used is quantitative analysis. In this data analysis to determine the development of the subject from taking the initial value and taking the final value with the modification of the plastic sponge ball tool. e. Stage of Preparation of Research Report There are three stages in the preparation of the report research that is:

At this stage starting from observation to processing class action research data as for how to carry out this research action, namely:

- 1). Preparation of preliminary report
- 2). Checking the research report by re-examining the report data if there are deficiencies, errors or mistakes in writing, then the improvement stage will be carried out in the preparation.
- 3). Preparation of the final report

Description of Cycle I Research Results 1. Action Planning

Before conducting volleyball learning research, researchers prepare and plan activities that will be carried out as objects and subjects of research. Researchers and teachers will make a learning plan scenario consisting of:

- a. Develop a teaching module for volleyball techniques
- b. Develop a volleyball test instrument
- c. Compile lembar assessment sheet and learning outcomes
- d. Develop an observation sheet
- e. Preparing facilities and infrastructure that will be needed to facilitate learning
- f. Determination of implementation time allocation
- g. Briefing the subject

2. Implementation of Action

The implementation of the action is a follow-up to the planning that has been designed to carry out the implementation. The action will begin by explaining the material to be delivered in general and the implementation steps to support student learning to follow the PE course at SMP N 12 Surakarta. Because this subject is not identical to other subjects, so this subject is done with a little theory and a lot of practice.

At the beginning of the action the teacher explains and provides exercises for students to understand and practice the correct technique movements, so that the researcher hopes to be well studied in order to focus on the learning that will be delivered. This is what students will do to achieve learning objectives.

3.Observation

After the implementation of activities, further learning will be carried out to observe and determine the impact of the level of difficulty as an observation on students to support the technical learning process. In the observation results that will be carried out in cycle I in the form of practice, so that some

students still have deficiencies in developing the movement of lower service techniques, lower passing, upper passing. This is because students do not understand gradually to perform techniques effectively.

Reflection

Reflection will be carried out to determine the achievement of the level of student success in cycle I, in the learning process teachers and researchers can see the ability of students to perform techniques by providing an evaluation at the end of the activity. Evaluation will be carried out after the end of practical activities and written tests, so that learning can be improved. From the evaluation results, there was an increase in learning outcomes in mastering the techniques of lower service, lower passing, upper passing in the initial conditions but in less than optimal achievement. For this reason, improvements will be made in the next cycle.

Description of Cycle II Research Results 1. Action Planning

In this cycle as an improvement of cycle I which has been carried out on students and evaluated in cycle I, so that in cycle I it has reached the minimum completeness criteria. However, cycle I was only able to provide sufficient value, so the researchers made improvements in cycle II which would begin with planning, implementation, observation and evaluation. Evaluation in cycle I will be applied in cycle II in order to minimize the same mistakes in class VIII D students with the aim of knowing the lower service, lower passing, upper passing, in order to improve volleyball learning outcomes in class VIII D students of SMP N 12 Surakarta in the 2024 school year. The expectations of teachers and researchers are that there will be an increase in cycle II with supporting factors researchers prepare observation sheets and evaluation sheets for students to determine developments in each learning process.

2. Implementation of Action

In this action the teacher explains the basic competencies that must be achieved as well as the benefits of the learning process of lower service techniques, lower passing, upper passing volleyball and provides an evaluation in cycle I, so that this can motivate students to understand the learning process continues to increase. The purpose of explaining the evaluation in the implementation of this action is so that students do not repeat the same mistakes in cycle II. The teacher gives books to students to study in order to understand the

contents in the book about lower service, lower passing, upper passing volleyball. In cycle II, teachers and researchers asked students to repeat learning like cycle I and teachers provided stimulation in the form of motivation so that learning in students continued to improve. Then the end of learning in cycle II students take practical test scores that have been taught by teachers and researchers as a picture of students to support the success of learning.

3. Observation

After the implementation of the activities, the next learning will be carried out to observe and determine the impact of the level of difficulty as an observation on students to support the learning process of lower service techniques, lower passing, upper passing volleyball in cycle II. In the observation results that will be

The learning process was carried out in cycle II in the form of practice and written tests, so that some students still had the opportunity to develop technical movements well. From the results of monitoring in cycle II, there was an increase in student learning outcomes so that this learning was declared successful.

4. Reflection

The evaluation results can be proven by increasing the learning outcomes of lower service, lower passing, and upper passing of volleyball through the application of modified plastic sponge ball aids for class VIII D students of SMP N 12 Surakarta in the 2024 school year.

Discussion of Each Cycle and Between Cycles 1. Initial Condition

Based on observations of VIII D class students, some information from the teacher collected on the learning activities of VIII D class students is still relatively low, including in the sufficient category, this can be seen from the enthusiasm of students who are less interested in volleyball material because the ball is heavy and feels pain when doing technical movements or strokes, students are less active because the standard-sized volleyball (SNI) is classified as a premium grade that is presented at school when the ball is pumped hard, when the volleyball is reduced, the ball will feel heavy. When doing lower service, lower passing, and upper passing, it does not reach the standard field distance of 18M x 9 M with a height for men of 2.43 M and for women of 2.24 M. In volleyball learning, this is what is very

lacking compared to learning other materials so it is very necessary to make improvements in learning, so that the material provided in field learning is maximized.

The majority of students do not reach the net in performing lower service, lower passing, and upper passing. The interaction between teachers and students has not been seen with the teacher dominating the PE learning process. Besides that, it makes students less motivated to learn specific movements in volleyball games. Students feel less happy and less motivated to play volleyball, so during learning, there are still many students who are clustered talking about things that have nothing to do with the material, some are just sitting, some are running around, making the learning situation less conducive.

The learning model used by teachers is the command teaching style, which is a teaching style that tends to emphasize orders and rules. In this teaching style, PJOK teachers give strict orders and students are expected to follow these orders without much discussion, students feel very monotonous without having their own initiative so that without collaborating with teachers in preparing equipment in learning so that students become unmotivated and not active and not creative.

2.Cycle I

The ability of students to improve learning techniques, the teacher makes improvements in the action that will begin by explaining the material to be delivered in general and the implementation steps to support student learning to follow the PE course at SMP N 12 Surakarta. Teachers and researchers explain and provide exercises for students to understand and practice technical movements.

3. Cycle II

This cycle is used to improve the technique if in cycle I the learning is less than optimal so that students are expected to repeat the learning in cycle II. The teacher re-explains the material that students have learned and reviews the evaluations that have been carried out in cycle I so that in cycle II the same mistakes do not occur. The teacher provides motivational doctrine so that students are enthusiastic in carrying out engineering Furthermore, students learning. remember the evaluation in cycle I given from the teacher and researcher so that it can be improved in cycle II. After that students repeat the learning that was given in cycle I with the hope that teachers and researchers can improve

engineering learning. In cycle II there was an increase.

Conclusion

Learning through the application of plastic sponge ball tools as a learning tool makes students more active during learning with the guided inquiry method, more motivated and happier, because this learning is in the form of learning using tools so that students become motivated by this research.

Through this innovation learning can improve learning outcomes of passing techniques.

lower, upper passing and lower service in class VIII D students at SMP N 12 Surakarta in the 2024 school year. This can be compared from pre-cycle, cycle I, and cycle II, with the process stages used for research materials. Researchers make an assessment rubric that includes affective, cognitive, and psychomotor in each cycle.

This can be seen from the results of the lower passing, upper passing and lower service techniques in pre-cycle students showing that in the knowledge aspect of 32 students there were 14 students or 43.75% who were complete and 18 students or 56.25% were not complete, in the skill aspect there were 14 students or 43.75% who were complete and 18 students or 56.25% were not complete. Then the learning outcomes of volleyball material shown by students in cycle I showed an increase in the assessment of the knowledge aspect, there were 23 students or 71.87% who were complete and those who did not meet the criteria were 9 students or 28.13%. while in the skill aspect it showed an increase. 23 students or 71.87% were in the complete category and the remaining 9 students or 28.13% were in the unfinished category. In cycle II, the improvement in student learning outcomes was better. In the knowledge aspect, it showed an increase of 30 students or 93.75% in the complete category and 2 students or 6.25% of students in the unfinished category. In the skill aspect, it has increased as many as 30 students or 93.75% are in the complete category, while the rest are in the incomplete category.2 other students or 6.25% were in the unfinished category.

Advice

After this research was conducted, the author conveyed to SMP N 12 Surkarta that there were 6.25% (2 students) who were not complete, so that remediation was given outside of official learning until it was completed so that they always strive to improve learning in order to improve the quality of teaching and learning. The author provides input so that the intensity of the

training is more competent than during the practical exam, if the learning looks monotonous in this digital era, you can see examples on social media so that learning continues to be fun and students feel comfortable and the knowledge given can be absorbed properly. With this research the author hopes to future learning so that it can be applied to further learning.

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