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Implementation of the Discovery Learning Model to Improve Learning Outcomes Basketball Dribbling Skills Students of Smk Negeri 1 Lamongan

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ABSTRACT
The lack of interest of students at SMK Negeri 1 Lamongan in learning basketball dribbling is because the methods used during the learning process tend to be boring, causing their learning outcomes to be low, so it is necessary to use innovative learning models to improve learning outcomes for basketball dribbling. This research aims to improve the PJOK learning outcomes of students at SMK Negeri 1 Lamongan, especially basketball dribbling material, by applying the discovery learning model. This research is a type of classroom action research (PTK). The method used in this research uses the method initiated by Kemmis and McTaggart, where in carrying out the research there are several stages, namely planning, implementation, observation, and reflection. The instrument used in this research was a basketball dribbling skills test sheet. Based on the state of the research that has been done, the researcher conducted three research cycles. After each cycle experiences improvement, it can be concluded that the application of the discovery learning model can improve PJOK learning outcomes in basketball dribbling skills material. This increase was proven in cycle 3 to have learning completeness reaching 100% on all indicators.

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INTRODUCTION

Education is one of the means that humans have in order to hone their potential or abilities through a learning process that has been obtained. Education is also everyone's right to get it, as stipulated in the 1945 Constitution in Article 31, Paragraph 1. Education is expected

not only to produce an intelligent generation but also a quality generation so that they can become the successors of a quality and educated nation (Handitya, 2019). Education is a learning process carried out by humans so that they have critical characteristics and can solve existing problems (Rahman et al., 2022). Physical Education, Sport, and Health (PJOK) is a subject in which physical activity is involved when doing it as an achievement of learning objectives (Stephani et al., 2014). When applying educational principles, the implementation must be in accordance with educational goals. The purpose of education in question is to form a national civilization that has dignity and educates the nation's life so that a person becomes a human being who has faith, is pious, is knowledgeable, and has noble character.

In PJOK learning, there are several materials that will be taught, such as big ball games, small ball games, aquatics, and others. In PJOK learning, there is material about big balls, one of which is basketball. The game of basketball is not only played during lessons at school but is widely played in the community as well. Basketball is a big ball game that is played with a total of five players, and each team plays with the aim of scoring goals or putting the ball into the opponent's basket or ring in order to get points. In the game of basketball, there are several techniques, one of which is the technique of dribbling the ball (Alnidawi et al., 2020). According to Fatahillah (2018), dribbling is the ability of students to move the position of the ball by using their hands quickly with the aim of passing opponents, setting the tempo of play, and heading to the opponent's area effectively. Oliver (2009) says that dribbling techniques require several factors, including balance, speed, flexibility, and muscle strength. However, based on observations made by researchers, students of SMK Negeri 1 Lamongan have not been able to do the dribbling technique when playing basketball games, so there is a need for teacher efforts to improve the dribbling skills of students of SMK Negeri 1 Lamongan. Also based on observations, students tend to be less interested in learning basketball dribbling because the methods used during the learning process tend to be boring, so they get bored easily and lack enthusiasm when learning.

The teacher's efforts to overcome these problems, namely that the teacher uses a variety of learning models, namely a learning model that is considered relevant to the material to be taught, One of these learning models is the discovery learning model. According to Widyastuti (2015), discovery learning is a learning model in which, during the learning process, students are required to be active and innovative in solving problems. Using the discovery learning model, students can understand the concept of dribbling motion, the meaning of dribbling, and the techniques used in basketball games. When students are intuitive, they will achieve the learning goals set by educators (Mile & Ruslan, 2021).

Based on the results of the researchers' observations, the researcher was interested in conducting classroom action research with the aim that the PJOK learning outcomes of Lamongan 1 State Vocational High School students, especially basketball dribbling material, could be increased by applying the discovery learning model.

MATERIALS AND METHODS

In this research, the type of research used is classroom action research. Classroom action research aims to improve the quality of a learning process so that the learning objectives that have been set will be well achieved. Through classroom action research (CAR), teachers can also solve problems that previously could not be solved. CAR itself is research carried out by teachers when carrying out the learning process in class with the aim of obtaining information to improve problems when carrying out the learning process. According to McNiff, reflective research is a form of research carried out by educators whose research

results can be used as a tool for developing teaching skills (Kurniawan et al., 2023). In general, action research is defined as research to improve quality and solve a problem by observing the subjects being studied and then observing the success of the follow-up actions given with the aim of being able to adapt a situation to achieve better results. In this research, researchers used an action research method that refers to the spiral design developed by Kemmis and McTaggart, as shown in the picture above. This spiral design procedure consists of planning, implementation, observation, and reflection, which are continued with the next cycle (Houtman, 2021).

Figure 1. CAR Implementation Cycle

The research sample in this class action research was made up of students of SMK Negeri 1 Lamongan, the Department of Islamic Banking Services 1, totaling 36 students. The sample of this research is the actor who provides information related to the research conducted by the researcher. The tools used by researchers to collect data are in the form of instruments that contain a series of tests and research sheets so that research data can later be obtained (Nasution, 2016). According to Arikunto, the research instrument is the most important and strategic position when conducting research because the instrument is a tool used to investigate a study (Ismail, 2018). In this classroom action research, the instrument used was an assessment indicator for movement skills, with each movement having a value of 1-4. If a student gets a score of 1-2 when doing a movement skill, then that student will become a priority for further learning until the student has a score of 3 and 4 when doing a skill test. Students who have completed grades 3 and 4 will be said to have completed.

Table 1. Instrument Indicators

Indicator	Description
Initial Attitude	1. Attitude leaning forward 2. Feet shoulder width apart 3. Focused gaze looking forward 4. Ready position to dribble the ball
Dribbling Position	1. Body posture leaning forward 2. Focused gaze looking forward 3. The bounce when dribbling must not be higher than the waist, and the ball must not be hit

	4. The hand that is not dribbling protects the ball from the opponent's seizure
Ball Mastery	1. The bounce of the ball must not exceed the waist 2. When dribbling, the ball must be positioned in front 3. The ball bounce focuses on the dribble path 4. Dribble position at the end with two jump stops simultaneously

Procedures for giving assessments during learning by giving a score of 4, 3, 2, or 1 on the test sheet with the provisions of a score of 4 if it meets 4 criteria, a score of 3 if it meets 3 criteria, a score of 2 if it meets 2 criteria, and a score of 1 if it meets 1 criteria.

Table 2. Assessment Category

Value Range	Category
90-100	Very well
80-89	Good
70-79	Currently
60-69	Not enough
>60	Less Once

RESULTS AND DISCUSSION

During learning, educators set student achievement targets so that learning can be carried out with maximum results. During learning, educators set targets for students to get scores of 3 and 4 on each indicator. If students score below the target in each indicator, educators will later conduct learning that focuses on these students so that they can improve their basketball dribbling motion skills. The research results will be displayed in the table below.

Table 3. Student Completeness Achievement Data

No	Aspect	Value	Indicator	Cycle-1			Cycle-2			Cycle-3		
				F	% (3+4)	Inf.	F	% (3+4)	Inf.	F	% (3+4)	Inf.
1	Initial attitude	4	If students meet 4 criteria	1	64%	T	15	100%	T	20	100%	T
		3	If students meet 3 criteria	22			21			16		
		2	If students meet 2 criteria	13			0			0		
		1	If students meet 1 criteria	0			0			0		
2	Dribbling Position	4	If students meet 4 criteria	0	42%	KT	10	97%	T	17	100%	T
		3	If students meet 3 criteria	15			25			19		
		2	If students meet 2 criteria	21			1			0		
		1	If students meet 1 criteria	0			0			0		
3	Ball Mastery	4	If students meet 4 criteria	0	44%	KT	7	86%	T	11	100%	T
		3	If students meet 3 criteria	16			24			25		
		2	If students meet 2 criteria	20			5			0		

		1	If students meet 1 criteria	0			0			0		

Based on the table above, it is known that in cycle 1, the mastery of achievement in basketball dribbling material is 64% in the initial attitude, 42% in the dribble position, and 44% in ball control. Based on these results, it is known that learning mastery has not been achieved by students, so there is a need for action to improve student learning outcomes on basketball dribble material.

Class 2 cycle action research showed that the mastery of the basketball dribbling material was 100% in the initial attitude, 97% in the dribble position, and 86% in ball control. This shows that there is an increase in the achievement of student completeness from cycle 1 to cycle 2. Based on the results of cycle 2, it is known that there is still learning mastery that has not been achieved by students, namely in the aspect of ball control, where there are still 5 students who still achieve only 2 indicators, so it is necessary to take action to improve student learning outcomes skills on basketball dribble material through the 3rd cycle.

Class action research cycle 3 showed that the mastery achievement of basketball dribbling material was 100% in the initial attitude, 100% in the dribble position, and 86% in ball control. In class action research cycle 3, it is known that learning completeness reaches 100% on all indicators.

Value of Student Learning Outcomes

Based on the data on student learning outcomes from the basketball dribbling material obtained and the analysis that has been carried out, the results of this classroom action research will be presented in the following table:

Table 4. Data on Student Learning Outcomes

Cycle	N	Mean	Min	Max
Cycle 1	36	63	50	83
Cycle 2	36	81	67	92
Cycle 3	36	86	75	92

Based on the data above, it is known that in cycle 1, the average value is 63, the lowest value is 50, and the highest value is 83. In cycle 2, the average value is 81, the lowest value is 67, and the highest value is 92. Then in cycle 3, it is known that cycle 3 has an average value of 63, the lowest value is 50, and the highest value is 83. From the table, it means that there is an increase in each cycle. This increase in value can be seen in the graph presented by the researcher below.

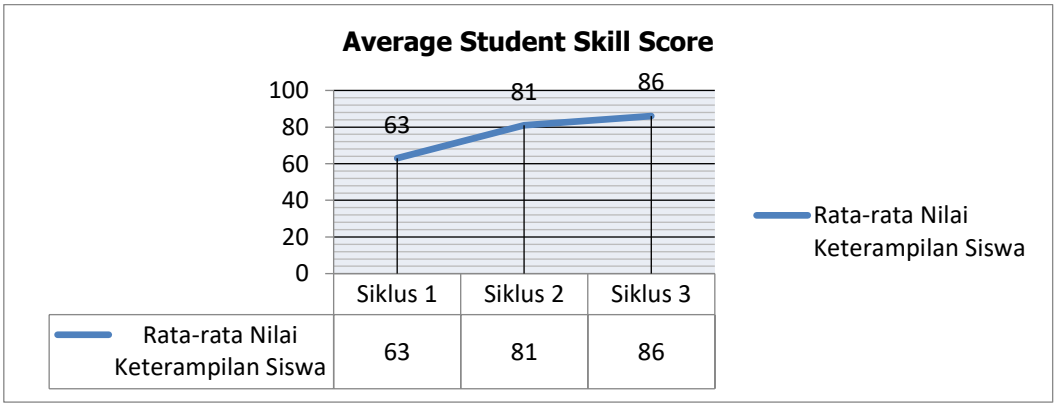

Figure 2. Average Student Skill Score

The picture above shows that from the 1st to the 3rd cycles, there is an increase in student learning, which is shown in numbers in each cycle. So, from the graph, it can be seen that this classroom action research has increased in each cycle.

Table 4. Data on Student Learning Outcomes

	Cycle 1		Cycle 2		Cycle 3	
Category	N	Percentage (%)	N	Percentage (%)	N	Percentage (%)
Very well	0	0	9	25	14	38.89
Good	1	2.78	14	38.89	17	47.22
Currently	8	22.22	10	27.78	5	18.89
Not enough	7	19.44	3	8.33	0	0
Very less	20	55.56	0	0.00	0	0
Total	36	100	36	100	36	100

Based on the table above, it is known that in the implementation of cycle 1, there were 1 (2.78%) students in the good category, 8 (22.22%) students in the medium category, 7 (19.44%) students in the poor category, and 20 (55.56%) students in the very poor category. In the implementation of cycle 2, there were 9 (25%) students in the excellent category, 14 (38.89%) students in the good category, 10 (27.78%) students in the moderate category, and 3 (8.33%) students in the poor category. In the implementation of cycle 3 there were 14 (38.89%) students in the very good category, 17 (47.22%) students in the good category, and 5 (18.89%) students in the medium category.

Discussion

After the researchers carried out data analysis, the results were obtained, which explained that the application of the discovery learning model could improve learning outcomes for PJOK skills in basketball dribbling material for class XI students at SMK Negeri 1 Lamongan. The results of the analysis in this research are in line with research conducted by Mile and Ruslan (2021), which states that implementing the discovery learning model can improve students' basketball dribbling abilities. Then research conducted by Munir et al. (2021) also explains that the discovery learning model can improve students' learning outcomes for basketball playing skills by 55%. According to Tampubolon (2019), in the discovery learning learning model, students actively carry out learning where educators do not provide material at the start of learning so that students are asked to look for and are required to be able to complete the material themselves. In agreement with Tampubolon (2019), Schunk (2012) also states that discovery learning is a learning model that refers to a way of mastering knowledge for its own purposes. According to several opinions, discovery learning always involves guidance from the teacher when students carry out activities such as discovering, analysing, studying, and investigating. According to the Ministry of Education and Culture (2013), there are several steps in carrying out discovery learning model learning, namely: (1) providing stimulation; (2) identifying problems; (3) collecting data; (4) processing data; (5) proving; and (6) drawing conclusions.

In the learning process using the discovery learning model, researchers know several advantages to using this learning model, namely: (1) students are actively involved, and students' motivation when participating in learning increases; (2) students are more creative when doing investigations; (3) students can remember the material concepts they find themselves; and (4) students are more independent in solving problems. In line with the findings of the advantages of the discovery learning learning model by researchers, Thorsett (2021) also stated that there are advantages to the discovery learning learning model. These advantages include: (1) students are active during the learning process; (2) students can develop the skills they have throughout their lives; (3) students' curiosity increases; (4)

students' motivation increases when doing experiments; and (5) students' initial knowledge and understanding will increase.

CONCLUSION

Based on the results of classroom action research and discussions related to improving learning outcomes in basketball dribbling material skills with several actions, starting from cycle 1 to cycle 3, carried out at SMK Negeri 1 Lamongan, it can be concluded that the application of the discovery learning model can improve PJOK learning outcomes in basketball dribbling material. This increase is evidenced by the value of cycles 1–3, which always increases, and classroom action research in cycle 3, which has learning completeness reaching 100% on all indicators.

CONFLICT OF INTEREST

All authors declare that there is no conflict of interest in this research.

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