A Scientific Approach Using Peer Tutor Learning Models Can Improve Learning Outcomes Of Rounders Game

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ABSTRACT
This research is classroom action research. The series of cycles 1 and 2 used are: 1) planning, 2) action, 3) observation, 4) reflection. The subjects of this study were fifth graders of Elementary School 156 Wonosari, Sukamaju Region of North Luwu totaled 17 students. Research data were taken through written tests and practical tests. Test data collection tools used in the form of observation guidelines, journals, questionnaires, and photo documentation. Data were analyzed quantitatively. Based on the data analysis that had been carried out, the conclusions obtained are: 1) in the first cycle has not reached the predetermined success indicators, which 75% of students get a score of 70 or more. The percentage of completeness obtained in cycle 1 is 29.41% or 5 people who completed from 17 students. Thus the research was continued to the next cycle. 2) At the second cycle meeting, the results were 94.12% or 16 students who scored > 70 out of 17 students overall. The indicators of research success which is set in this study have been achieved. Based on the results of this study, it can be concluded that the improvement of student learning outcomes for fifth graders of Elementary School 156 Wonosari, Sukamaju Region of North Luwu is significant. It is suggested that teachers should apply a scientific approach using a cooperative learning model using peer teaching methods to improve learning outcomes.

Keywords: Scientific Approach; Cooperative Learning Model; Peer Teaching Type; Learning Outcomes.

INTRODUCTION

Studying using a scientific approach is a learning model that consists of observing activities (to identify the problem that needs to be known) (Bahriah et al., 2014), formulating questions and hypotheses, collecting data or information with various techniques, processing/analyzing data/information, drawing conclusions, and communicating (Putra et al., 2018) the results that consist of conclusions and also other findings exclude problem formulation to gain knowledge, skills, and attitudes. These steps can be continued with creative activities (Permatasari, 2014) The 2013 curriculum
focuses on students having a central position to develop their competencies by applying a scientific approach (Sukmawan & Sudarso, 2013).

Meanwhile, at Elementary School 156 Wonosari, the Sukamaju Region of North Luwu is a school that has implemented the curriculum. To achieve successful learning outcomes, the role of a teacher is needed to direct the students. A teacher education process is a very important component, in addition to other components such as objectives, curriculum, methods, environmental facilities and infrastructure, and evaluation (Daryanto, 2013).

Physical education, sports, and health taught in schools have a very important role, such as providing opportunities for students (Setiawan et al., 2020). To be directly involved in various learning experiences through selected physical activities, sports, and health that are carried out systematically (Nugroho & Rachman, 2013). Learning model as an organizing environment that can lead students to interact and learn how to learn (Jaya et al., 2016). Because each student is unique, he has different ways of learning according to his development and historical learning background (Sembiring et al., 2020), so the learning models that develop are very diverse. According to Bruce and Marsa, 1996 in (Gustiawati et al., 2014).

Based on the results of observations on the fifth-grade students of Elementary School 156 Wonosari, Sukamaju Region of North Luwu, which consists of 17 students, 10 male students, and 7 female students. The problem found is that when they are learning to throw a ball along the ground in the rounders lesson, namely the technique of throwing a ball along the ground, there are still many students who make undirected movements and the throw is not on the right target or intended, there are even some students who throw along the ground with very weak strength because they do not have self-confidence.

Students are also less able to control the ball when they are throwing it (Abdul, 2007). Throwing the ball is one of the games in physical education about playing rounders, it looks very easy but few can throw properly and correctly (Sukmawan & Sudarso, 2013). Because too many students think it’s easy and more people underestimate it by playing and joking with other students (Haris, 2016). Therefore, the learning outcomes are less than optimal.

In physical education subjects, teachers are required to be more creative (Gunawan et al., 2021) in presenting teaching material in a fun way with all existing conditions and limitations (Mustagfiri & Sudarso, 2013). There are learning models in
physical education, namely direct Instruction, Personal System Instruction (PSI), Cooperative Learning, The Sport Education Model, Peer Teaching Model, Inquire Models, and The Tactical Games Model. In addition, there is a TGfU (Team Games for Understanding) model. This model is a game-based group learning model. (Saleh & Sultan, 2015).

In addressing these problems, the researchers took the initiative to improve learning outcomes (Asih, 2018) by using the peer teaching-learning model, which is better at providing study assistance to classmates at school. Learning assistance by peer teaching can eliminate awkwardness so that the friend being taught is not ashamed to reveal the difficulties they face (Faozi et al., 2019). To determine the tutor, the teacher can see from the academic development of students such as high rankings in their class (Wildani & Gazali, 2020).

METHOD

This research is classified as classroom action research (CAR) which aims to solve learning problems in the classroom to improve student learning outcomes. Each cycle consists of 2 meetings. The cycle will be repeated until the research results reach the indicators of success. The indicators for the success of this study are that students can achieve learning outcomes based on the standard value of Minimum Completeness Criteria = 70, and the average value of classical student learning outcomes is >70%. The application of the scientific approach applied to the core activities is known as the 5M steps, which are Observing, Questioning, Reasoning, Trying, and Communicating. In the Trying and Communicating step, the researcher regulates student learning activities by applying the peer teaching type cooperative learning model. Four aspects become the focus of observation, namely spiritual attitudes (CC-1), social attitudes (CC-2), knowledge (CC-3), and movement abilities (CC-4).

Classroom action research is an examination of learning activities in the form of an action that is intentionally raised and occurs in a class. The action is given by the teacher or by direction from the teacher carried out by students. (Bahruddin, n.d.).

The research approach used is quantitative and qualitative. Techniques and procedures for data collection were carried out using field observations and documentation. Data collection used research instruments that have previously been validated and tested for the reliability of Cronbach's Alpha in the form of observation sheets, student worksheets, and movement skills tests. The observation technique used is
non-participant observation, in which the person who becomes the observer is not directly involved in the activities of the research subject and only act as a spectator. From the data that has been collected, it is analyzed descriptively with statistical calculations to see the percentage of developments that occur as a whole.

RESULTS AND DISCUSSION

Initial Observation

From the results of observations on fifth-graders at Elementary school 156 Wonosari, Sukamaju Region of North Luwu consists of 17 students consisting of 10 male students and 7 female students. The overall average score of students from the range 0 – 100 in each aspect, namely spiritual and social attitudes (CC-1&CC-2) = 38.24; Knowledge (CC-3) = 53.65 ; and Psychomotor (CC-4) = 34.03 so that only 30% of the 17 students completed, 30%, namely 3 out of 17 students. The problem found is that when they are learning to throw a ball along the ground in the rounders lesson, such as the technique of throwing a ball along the ground, there are still many students who make undirected movements and the throw is not on the right target or intended, there are even some students who throw along the ground with very weak strength because they do not have self-confidence. Students are also less able to control the ball when throwing. Throwing the ball is one of the games in physical education about playing rounders, it looks very easy but few throws properly and correctly. Because too many students think it's easy and more people underestimate it by playing and joking with other students. Therefore, the learning outcomes are less than optimal.

In summary, the researcher must be able to overcome deficiencies in teaching by applying the peer teaching-learning model which is one of the learning models that is expected to provide an active role and motivation to students, so that they study seriously the material provided which will be applied in cycle I. and cycle 2.

Table 1
Summary of Fifth Grade Student Learning Outcomes
Elementary School 156 Wonosari, Sukamaju Region of North Luwu

<table>
<thead>
<tr>
<th>Field Meeting</th>
<th>CC-1</th>
<th>CC-2</th>
<th>CC-3</th>
<th>CC-4</th>
<th>Learning Result</th>
<th>Percentage of completeness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Observation</td>
<td>79,41</td>
<td>34,31</td>
<td>50,41</td>
<td>35,08</td>
<td>51,07</td>
<td>17,65</td>
</tr>
<tr>
<td>Cycle I (1st Meeting)</td>
<td>85,29</td>
<td>43,12</td>
<td>51,64</td>
<td>38,87</td>
<td>54,07</td>
<td>17,65</td>
</tr>
<tr>
<td>Cycle I (2nd Meeting)</td>
<td>85,29</td>
<td>58,82</td>
<td>64,82</td>
<td>43,70</td>
<td>63,12</td>
<td>20,65</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Cycle</th>
<th>1st Meeting</th>
<th>2nd Meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cycle I</td>
<td>88.23</td>
<td>72.55</td>
</tr>
<tr>
<td>Cycle II</td>
<td>97.06</td>
<td>85.29</td>
</tr>
</tbody>
</table>

Cycle I
During the first cycle, a scientific approach was applied with a peer teaching type cooperative learning model for 2 meetings. The division into one group consisting of 5 students was carried out heterogeneously based on the value of student learning outcomes obtained during initial observations. In Cycle 1, it was shown that the learning outcomes of throwing a ball along the ground in the rounders game of fifth-grade students of Elementary School 156 Wonosari, Sukamaju Region of North Luwu, there is 0 student (0.00%) which is included in the very good category, there are 3 students (17.65%) who are included in the good category, there are 2 students (11.76%) which are included in the sufficient category, there are 6 students (32.20%) who are included in the less category and there are 6 students (32.20%) who are included in the very poor category. So it can be concluded that in cycle 1 (meeting 2) 5 students have completed learning and 12 students have not completed learning.

Attitude is the result of learning in the form of individual skills to choose the kinds of actions to be taken. In other words, attitude is a state within the individual (Djamarah, 2015).

In addition, (Djamarah, 2015) asserted that change includes all aspects of behavior. Changes obtained by individuals after going through a learning process include...
changes in overall behavior when someone learns something as a result he will experience a change in overall behavior in attitudes, habits, skills, and knowledge.

Based on the expert opinion above, the behavioral changes as the result of learning include three main things, which can be seen from the affective, cognitive, and psychomotor aspects. Based on the opinion above, there are differences in the characteristics of these students, causing differences in student learning motivation among fellow group members. When doing group discussion, they usually seem to be dominated by 2 or 3 students who are actively learning, this results in other student members being passive and causing disinterest in the learning material provided. When this happens, students' attention will be distracted and less disciplined and disrupt the ongoing learning process activities. Another obstacle experienced during the first cycle was not being able to display images in the form of learning videos due to technical problems. Factors that can hinder student learning motivation must be addressed immediately so that researchers intend to make improvement plans by trying to show several videos about throwing techniques and doing heterogeneous group reforms which in one group consists of 3 students which will be applied in cycle 2.

**Cycle 2**

During cycle 2, a scientific approach was applied with a peer teaching type cooperative learning model for 2 meetings. The group division consisted of 3 students in one group who was carried out heterogeneously based on the value of student learning outcomes obtained during the cycle I. In cycle 2 there was an increase of 26.75 %. In Cycle 1, it was shown that the learning outcomes of throwing a ball along the ground in the rounders game of fifth-grade students of Elementary school 156 Wonosari, Sukamaju Region of North Luwu, there is 0 student (0.00%) which is included in the very good category, there are 3 students (17.65%) who are included in the good category, there are 2 students (11.76%) which are included in the sufficient category, there are 6 students (32.20%) who are included in the less category and there are 6 students (32.20%) who are included in the very poor category.

Attitude is the result of learning in the form of individual skills to choose the type of action to be taken. In other words, attitude is a state within the individual (Djamarah, 2015).

According to (Djamarah, 2015) asserted that change includes all aspects of behavior. Changes obtained by individuals after going through a learning process include
changes in overall behavior when someone learns something as a result he will experience a change in overall behavior in attitudes, habits, skills, and knowledge.

Based on this theory, during the learning process, significant changes in student behavior were seen, for example, that most students were active in learning and active in group discussions. Students will be motivated to do a task if the task given will be challenging but not too difficult. In addition, getting good support from fellow members of the right group can minimize students' worries in expressing their opinions without being dominated by other members. With heterogeneous group reshuffling, students will learn to accept different opinions, can trigger students' psychological motivation to learn, provide better learning opportunities, support each other, and direct them to gain knowledge or master the material provided.

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Based on research during cycle I and cycle 2, shows that the peer teaching type cooperative learning model can overcome learning problems caused by differences in student characteristics in a class to increase self-confidence and learning motivation which will affect student learning outcomes.

CONCLUSIONS AND SUGGESTIONS

Based on the results of research that has been conducted at Elementary School 156 Wonosari, Sukamaju Region of North Luwu through the implementation of a scientific
A scientific approach using a peer teaching type cooperative learning model can enhance the value of the fifth-grade students' ball-throwing learning outcomes in rounders learning. Through a scientific approach, students become the main focus in the learning process that students try to find out and solve a problem following the 5M scientific steps, namely: Observing, Questioning, Reasoning, Trying and Communicating in the context of the learning process. Organizing student learning activities by applying peer teaching cooperative learning models can empower students who have high absorption from the group of students themselves to become tutors for their friends, students who become tutors are tasked with providing learning materials and exercises to their friends. (tutee) who do not understand the material/training provided by the teacher based on the rules that have been mutually agreed upon in the group, so that a cooperative, not competitive group learning atmosphere will be built.

REFERENCES


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