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Improving Basic Throwing and Catching Movements in Grade V Elementary School Students

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Abstract

This study aims to analyze the implementation of the game of throwing and catching to improve the learning outcomes of basic throwing and catching movements. This study was conducted on grade V students from one of the schools in Penjaringan District, North Jakarta City. With a total of 30 students who needed action. The design of this study used action research which was carried out through four stages, namely: planning, implementation, observation and evaluation. This study, which consisted of two cycles, used data collection techniques in the form of observation and throwing and catching test instruments which were then processed with descriptive statistics. The results of the study showed an increase of 80% in students' throwing and catching movements from the pre-cycle to cycle II. Thus, the implementation of the game method in improving learning basic throwing and catching movements has a significant influence. This study recommends that further research can package games with more interesting game names and focus on the development of movement and student enthusiasm.

How to Cite

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INTRODUCTION

Basic manipulative movements are one of the important motor skills to be developed in students (Fatmawati, 2020), especially at the elementary school level. These basic movements include various activities such as throwing, catching, kicking, and hitting which require coordination between the eyes and hands (Mahendra et al., 2023; Yudanto, 2020). One of the most important basic manipulative movements is throwing and catching (Ayuningtias, 2022). The ability to throw and catch not only improves fine motor skills but also helps students develop coordination, concentration, and cooperation skills (Herdini & Darmayanti, 2024; Monika, 2021). Therefore, understanding and mastering these basic movements is an important foundation for the physical and mental development of students (Fatmawati, 2020; Newell, 2020).

However, the facts on the ground show that there are various problems in learning basic throwing and catching movements in elementary schools, including many students still have difficulty in doing basic throwing and catching movements correctly (Fatsey et al., 2023; Surbakti & Hendrawan, 2024). This is due to the lack of understanding of teachers about effective learning methods (A. A. Putri et al., 2024), limited facilities (Sitanggang et al., 2024), and minimal time allocated for physical education (Hill & Valdez-Garcia, 2020). In addition, there are also students who feel less confident and afraid of failing when trying to do throwing and catching movements (Flores-Aguilar et al., 2023; Mulya & Lengkana, 2020), thus hindering their learning process. As a result, many students are unable to master this skill properly, which can ultimately affect their overall motor development.

Success in learning basic throwing and catching movements is influenced by several factors, including teaching methods (A. Ningsih & Munzir, 2020), student motivation (Dewi & Faridah, 2022), and availability of facilities (Purnami & Formen, 2020). Ineffective teaching methods are often the main obstacle, so teachers need to use more innovative approaches, such as games, to make learning more interesting and fun (Purba et al., 2024). For example, games such as chain balls or group throwing and catching can help improve throwing and catching skills in a more interactive and fun way. Student motivation also plays an important role; teachers must create a supportive environment and provide praise and positive encouragement to build student confidence (Nafisa et al., 2024). In addition, the availability of facilities such as sufficient balls, adequate space, and other aids must be considered so that students can practice optimally (Arini & Rigianti, 2024). By paying attention to and addressing these factors, the learning outcomes of basic throwing and catching movements in elementary schools can be significantly improved.

A variety of literature has studied learning basic throwing and catching movements such as Supriadi (2022) who studied the effect of learning manipulative skills using ball thrower learning media on the ability to throw and catch balls in elementary school students, a study involving 20 students selected through random sampling techniques resulted in learning outcomes using ball throwing learning media having a significant effect on the ability to catch balls in elementary school students. This is different from previous research by Muharram and Kurniawan (2021) who used a type validation study research design by developing four stages, including designing LTBS (Relay Ball Throw and Catch) movements, understanding the form of LTBS games, identifying and understanding kinesthetic games, and solving problems in physical education learning. The results of his research show that the form of LTBS games can help students understand kinesthetic movements. Furthermore, Dewi and Faridah (2022) studied the influence of learning methods and learning motivation on improving the ability to throw and catch balls in elementary school students involving a sample of 60 people. The study using a 2x2 experimental research design showed that there was an influence between group learning methods and group learning methods and individual learning methods on throwing and catching skills. However, from the abundant literature, there is not much research that examines improving basic throwing and catching movements through games for elementary school students.

Based on the description above, this study is focused on analyzing the improvement of basic throwing and catching movement learning through games that are structured in questions, namely: How are the learning outcomes of students in basic throwing and catching movements through games? Therefore, this study aims to analyze the implementation of games designed to improve learning outcomes of basic throwing and catching movements through action research.

METHODS

This study uses a quantitative approach, with the Action Research research design Kem-

mis, et.al (2014) which is carried out through 4 stages, namely planning, implementation (action), observation and reflection. This Action Research is a popular design that is widely used in research in the field of Education (Edwards-Groves & Kemmis, 2016; Meesuk et al., 2020; Sumarni et al., 2016; Vogelzang & Admiraal, 2017). In addition, action research provides an opportunity for researchers to find new efforts to make changes that are in accordance with conditions and needs (Darwis, 2016).

The subjects used in this study were 30 students consisting of 16 boys and 14 girls from a school in Penjaringan District, North Jakarta City. The subjects were selected based on the results of the initial test that required action in order to improve the learning outcomes of throwing and catching movements.

The data collection technique in this study used a test instrument of throwing and catching movements that had been validated by experts, observations and field notes. The data analysis in this study was processed using descriptive analysis.

The indicator of success in this study is a criterion used to see the level of success of action research activities in increasing or improving the quality of basic throwing and catching movement skills. Thus, the completion of learning throwing and catching movements individually is set at a minimum criterion of 75 and classically is declared complete if the overall student score reaches 80%.

RESULTS AND DISCUSSION

Pre Cycle

This study is based on the results of observations in class V at one of the schools located in Penjaringna sub-district. Where the researcher found several identification problems including the difficulty of students in doing throw-catch. This is indicated by several factors including the lack of strategy and innovation carried out by teachers during learning, lack of self-confidence and courage from students. The results of learning to throw and catch students in class V before being given the game method can be known at the first learning meeting through observation of the throw-catch movement assessment recorded by the camera and then analyzed using Kinovea software. The assessment of the basic throw-catch movement was carried out to determine the level of student skills before cycle I and cycle II were implemented. Thus, the pre-cycle results show the following data:

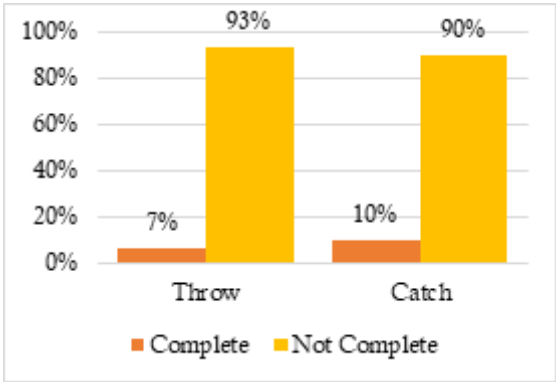

Figure 1. Initial Test Throw Catch Percentage

The image above shows the percentage of students' throwing and catching learning outcomes in the pre-cycle. The pre-cycle results show that only 7% of students have completed the throwing movement and 10% of students have completed the catching movement. Furthermore, 93% of students have not completed the throwing movement and 90% of students have not completed the catching movement. The average pre-cycle results for the throwing movement are 36.48 and for the catching movement are 38.01. Thus, it is necessary to prepare a learning plan for cycle I that emphasizes game methods that are appropriate to the needs of students.

Cycle I

Planning

Cycle I begins with the planning stage, the things that are done in the planning stage of cycle I are as follows: a) preparing a learning module for throwing and catching movements; b) designing game strategies to improve throwing and catching movements; c) creating a diagnostic assessment sheet; d) creating a performance assessment sheet; creating an individual assessment sheet in the form of an evaluation and reflection sheet.

Implementation

In the implementation stage, it begins with preliminary activities consisting of opening the lesson with greetings and prayers, asking for news and checking attendance, conducting apperception, conveying learning objectives, conducting diagnostic pre-assessments.

Then, it is continued with core activities consisting of students doing warm-ups starting with jogging, static warm-ups and dynamic warm-ups, students listening to the instructions given by the teacher, the teacher provides variations of cycle I games in the form of a) introduction to concepts; b) throwing and catching games against the wall; c) throwing and catching games in pairs; d)

throwing and catching games in threes; e) throwing and catching obstacle ball games; f) throwing and catching zigzag ball games.

In the final stage of implementation, it ends with a closing which is done by cooling down, providing feedback to students, evaluating student development and closing the learning with prayers and greeting.

Observation

Observation activities in cycle I are aimed at researchers and students with the aim of reviewing the success of the learning process that has been carried out in the form of implementing game strategies in improving throwing and catching movements. To see the success of the action, a throwing and catching movement test was conducted at the end of cycle I. The results of the throwing and catching movement test in cycle I produced the following data:

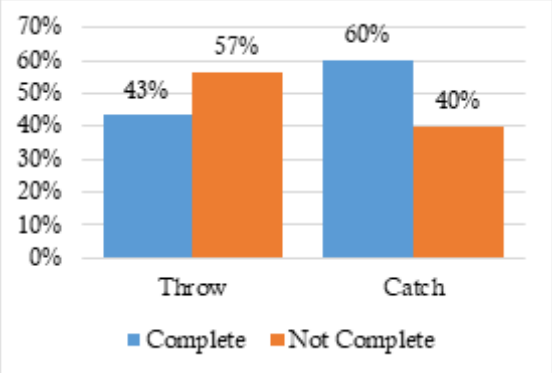

Figure 2. Percentage of Throwing and Catching Cycle I

The picture above shows the achievement of student learning outcomes in cycle I. The data above shows that there are 43% of students who have completed the throwing movement and 60% of students who have completed the catching movement. However, there are still 57% of students who have not completed the throwing movement and 40% of students who have not completed the catching movement. The average cycle I shows a value of 60.41 for the throwing movement and 68.04 for the catching movement. This shows that satisfactory learning outcomes have not been achieved in cycle I.

Reflection

After the learning process in cycle I was carried out, the researcher and collaborators reflected on the observation results to find weaknesses or deficiencies in cycle I. The things that need to be improved in cycle I are as follows: a) the researcher is still lacking in conditioning the class; b) the games that are designed still require mobility or long queues so that there is a lack of opportunity for students to play; c) the student's grades are still not complete. Therefore, the learning results in cycle I have not shown a classical percentage of completeness of 80%, so this research has not been achieved and re-planning will be carried out in cycle II.

Cycle II

Planning

Cycle II begins with the planning stage, the things done in the planning stage of cycle II are as follows: a) preparing a learning module for throwing and catching movements; b) designing game strategies to improve throwing and catching movements; c) creating a diagnostic assessment sheet; d) creating a performance assessment sheet; creating an individual assessment sheet in the form of an evaluation and reflection sheet.

Implementation

In the implementation stage, it begins with preliminary activities consisting of a_ opening the lesson with greetings and prayers, asking for news and checking attendance, conducting apperception, conveying learning objectives, conducting diagnostic pre-assessments.

Then, it is continued with core activities consisting of students warming up which begins with jogging, static warming up and dynamic warming up, students listening to the instructions given by the teacher, the teacher provides variations of cycle II games in the form of a) alternating ball throwing and catching games against the wall; b) 4-post ball throwing and catching games; c) team tangkao throwing games; d) numbering games; e) throwing and catching the ball while walking and running; f) throwing and catching the ball while jumping; g) throwing and catching the ball while jumping forward through cones.

In the final stage of implementation, it ends with a closing which is done by cooling down, providing feedback to students, evaluating student development and closing the learning with prayer and greetings.

Observation

Observation activities in cycle II are aimed at researchers and students with the aim of reviewing the success of the learning process that has been carried out in the form of implementing game strategies in improving throwing and catching movements in cycle II. To see the success of the action, a throwing and catching movement test was conducted at the end of cycle II. The results of the throwing and catching movement test in cycle II produced the following data:

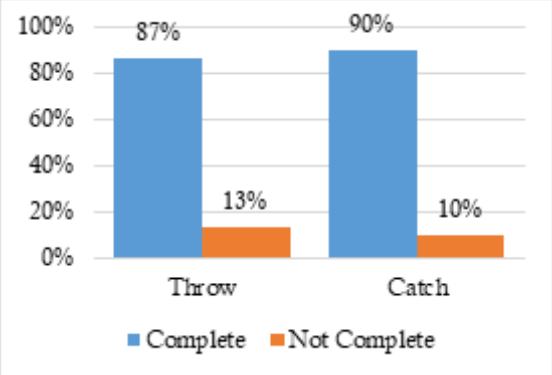

Figure 3. Percentage of Throwing and Catching Cycle II

The picture above shows the achievement of student learning outcomes in cycle II. The data above shows that 87% of students have completed throwing movements and 90% of students have completed catching movements. However, there are still 13% of students who have not completed throwing movements and 10% of students who have not completed catching movements. The average cycle II shows a value of 89.33 for throwing movements and 92.01 for catching movements. This shows that satisfactory learning outcomes have not been achieved in cycle II.

Reflection

After the learning process in cycle II was implemented, the results of the throwing and catching learning had successfully achieved the learning completion of the students, although there were still 13% of students who had not completed the throwing material and 10% of students who had not completed the catching material. Students who had not completed it would be given special in-depth study by repeating using the same strategy until they succeeded in improving the basic movements of throwing and catching. Thus, the results of learning to throw and catch through games received a good response from students as follows: a) the emergence of a spirit of cooperation between students; b) the emergence of enthusiasm and joy in playing; and c) active in participating in throwing and catching learning.

Table 1. Throwing Value Frequency

Category	Pre Test		Cycle I		Cycle II	
	F	%	F	%	F	%
Completed	2	7%	13	43%	26	87%
Not Completed	28	93%	17	57%	4	13%
Total	30	100%	30	100%	30	100%

Table 2. Catching Value Frequency

Category	Pre Test		Cycle I		Cycle II	
	F	%	F	%	F	F
Completed	3	10%	18	60%	27	90%
Not Completed	27	90%	12	40%	3	10%
Total	30	100%	30	100%	30	100%

Based on data obtained from the pre-cycle, cycle I and cycle II, the development of students after receiving the action in the form of a game of throwing and catching can be visualized as **Table 1 & Table 2**.

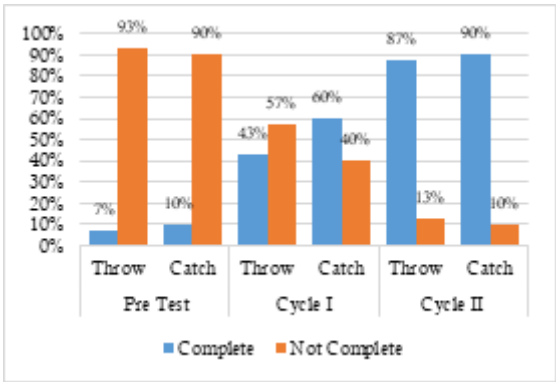

Figure 4. Percentage of Learning Outcomes Throw Catch

The data above shows that 80% of students experienced an increase in throwing and catching during the action. The increase in throwing and catching skills in students through games shows the effectiveness of interactive learning methods. Initially, only 7% of students completed throwing skills and 10% of students completed catching skills in the pre-test. However, after the game involving throwing and catching activities was implemented, there was a significant increase with 87% of students completing throwing skills and 90% of students completing catching skills in the second cycle. This method is successful because games not only make learning more fun but also increase student motivation and participation. In addition, students learn in a less formal atmosphere and are more conducive to mastering physical skills..

However, there are several inhibiting factors in the learning process through games. One of the main inhibiting factors is the lack of adequate facilities and game equipment, which can limit the effectiveness of training (Gusniati et al., 2024). n addition, differences in physical abilities and coordination between students can make some students feel difficult or less confident. Lim-

ited time in game sessions can also be an obstacle, especially if the lesson schedule is very busy. Another factor that needs to be considered is the potential for injury or accidents that can occur during the game, which requires close supervision from the teacher (H. A. Putri, 2024).

On the other hand, there are several significant supporting factors in the learning process through games. The game method that is designed in an interesting and varied way makes students more enthusiastic and actively involved in learning (E. P. Ningsih, 2024). Support from teachers who provide continuous direction and motivation helps students overcome the difficulties they face (Hanaris, 2023). In addition, games provide opportunities for students to learn to work together and compete healthily, which can improve their social skills (Rumiyati & ZulFitria, 2024). Evaluation and feedback provided regularly during and after the game also help students understand and correct their mistakes, so that their throwing and catching skills continue to improve.

CONCLUSION

The game-based learning method has proven to be effective in improving students' throwing and catching skills. This can be seen from the significant increase in the percentage of students who have completed both skills from the pre-test to the second cycle. Although there are several inhibiting factors such as lack of facilities, differences in physical abilities, limited time, and potential injuries, the benefits obtained are much greater. Support from teachers, interesting learning methods, and regular feedback play a major role in the process of improving skills. Thus, an interactive and fun learning approach such as games can be an effective solution to develop students' physical skills.

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