



Implementation of Cat and Mouse Game in Improving Locomotor Skills of Grade IV Elementary School Students

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Abstract

This study aims to improve the locomotor skills of fourth grade elementary school students through the implementation of the traditional game "cat-mouse". The study used the Classroom Action Research (CAR) method which was carried out in three cycles, including planning, implementation, observation, and reflection. The subjects of the study were 20 fourth grade students of Cilengkrang Elementary School, North Sumedang Regency, consisting of 10 males and 10 females. Data collection was carried out through observation, locomotor ability tests, and teacher performance assessment instruments. The results showed a significant increase in students' locomotor abilities, with the percentage of learning completion from 30% in the pre-cycle to 85% in cycle III. In addition, teacher performance in planning and implementing learning also increased to reach the target in cycle III. The "cat-mouse" game has proven to be effective as a learning medium in improving locomotor abilities and motivating students to actively participate in physical activities.



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INTRODUCTION

The importance of developing children's locomotor movements in elementary schools, especially through cat-and-mouse games, cannot be separated from the role of locomotor movements as a fundamental aspect in physical education. Locomotor movements such as running, jumping, and dodging are important elements that support children's physical and motor development (Cendekia, 2024). Adequate physical activity not only improves physical health but also has a positive impact on children's overall well-being. Data from the World Health Organization (WHO) shows that children aged 5-17 years are advised to do at least 60 minutes of moderate to vigorous physical activity every day to support their growth and development (Wahyuni & Destiana, 2025). However, in practice, many children do not meet this recommendation, which can have a negative impact on their physical and social development. Lack of physical activity can lead to decreased gross motor skills, low physical fitness, and difficulty in interacting socially (Kusmiran, 2022). This shows an effective solution in increasing children's participation in physical activity, one of which is through the implementation of traditional games such as cat-and-mouse. This game not only involves dynamic physical activity but also helps children develop social skills such as cooperation, communication, and agility (Lismadia, 2022). Therefore, further research is needed to optimize the use of traditional games in the context of physical education in elementary schools (Muslihin, 2020). The cat-and-mouse game has great potential to improve children's locomotor movements. Previous studies have shown that traditional games involving active movements can improve children's gross motor skills, muscle strength, and endurance. In addition, this game also

functions as a social medium that can increase interaction between children, helping them learn to work together and communicate effectively (Hanief et al., 2017). However, the challenge faced is the lack of understanding and application of effective learning methods in the context of physical education, especially in elementary schools (Hardika & Fuzita, 2022). Many teachers have not utilized traditional games as a formal learning medium, creating a gap between theory and practice in physical education.

This study aims to fill this gap by exploring how cat-and-mouse games can be applied in learning to improve the locomotor movements of 4th grade elementary school children. Through the Classroom Action Research (CAR) approach in two cycles, this study is expected to provide new insights for teachers in designing more interactive and enjoyable learning activities (Ummah, 2019). Theoretically, the results of this study are expected to enrich the literature on physical education and traditional games, as well as provide empirical evidence of the benefits of games in the context of learning (Cendekia, 2024). Practically, the results of this study can be used by teachers to improve the quality of physical education in elementary schools, so that children can be more motivated to participate in physical activities (Kusmiran, 2022). Through a fun and interactive approach, it is hoped that children can develop physical, social, and emotional abilities holistically. This is in line with the goals of national education which prioritize holistic development of children (JASMINE, 2014). Ultimately, this study is expected to make a real contribution to improving the health and well-being of children as a whole (Lismadia, 2022).

METHODS

Research is the application of a scientific approach to the study of a problem to obtain useful and accountable information (Purnia & Alawiyah, 2020). This study uses a type of classroom action research where Classroom Action Research (CAR) is a form of research conducted by teachers in their own classes with the aim of improving or enhancing learning practices through a series of reflective actions (Aziz et al., 2023). It is important for teachers to identify various problems that arise during the learning process, try implementing new strategies, and evaluate their impact on students. Thus, the focus of the research is not only on the final results of students, but also on improving the quality of the learning process in the future. The research design in CAR generally refers to the Kemmis and McTaggart model, which includes four main stages: planning, action, observation, and reflection. This model allows teachers to conduct continuous evaluation of their learning practices (Keguruan et al., 2019).

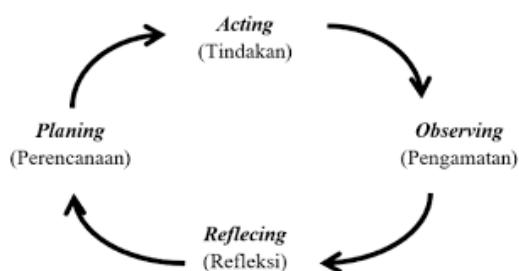


Figure 1.1 Kemmis & McTaggart Model
(Planning, Implementation, Observation,
Reflection)

Participants

The subjects in this study were grade IV students of Cilengkrang Elementary School, Sumedang Utara District, Sumedang Regency, in the 2024/2025 academic year with a total of 20 students consisting of 10 boys and 10 girls.

Procedures

The implementation of PTK (Classroom Action Research) is planned through several cycles as follows:

1. Action Planning

The planning stage is the initial stage in a research, planning is carried out so that a research is more focused and controlled. A plan that is carried out will affect the results of the research through a game of cat and mouse. If the planning is done carefully, the results will be satisfactory. However, if the planning is not done carefully, the results obtained will not be in accordance with what is expected. The following are the stages of action planning:

- a. Conducting initial research to identify problems that need to be addressed. In this stage, the researcher observed the process of learning baseball for grade IV students at SDN Cilengkrang Sumedang.
- b. Making a learning plan (RPP) for each cycle.
- c. Researchers and teachers hold discussions on how to take action regarding the steps of implementation to motivate children to learn.
- d. Preparing learning tools in order to improve the learning process of locomotor movements.

2. Implementation of Action

This stage of implementing the action is a series of activities carried out according to the planning that has been made. This stage is carried out in the form of activities whose steps are in accordance with the actions chosen in a study. The following are the activities carried out.

- a. Cycle I, corrects problems found from initial data by improving the locomotor movement learning process through the cat and mouse game method.
- b. Cycle II. correct the deficiencies found in cycle I that have been implemented, so that existing deficiencies can be corrected in Cycle II.
- c. Cycle III, fixing problems that arise and are discovered in the cycle II learning improvement process. With the aim that problems found in the improvement of the learning cycle can be corrected until the results are achieved according to the target.

Design or Data Analysis

To analyze the research results, qualitative and quantitative descriptive analysis techniques were used. The observation results will be analyzed qualitatively, and the learning outcomes will be analyzed quantitatively. To do this, the average score, percentage, minimum value and maximum value obtained in each cycle are used to analyze descriptive statistics. This study conducted an analysis by grouping data collected through observation. Then, the data is presented to calculate learning completeness using simple statistics.

RESULT

The results of the research conducted are discussed based on the identified problems, namely the lack of student locomotor movements in physical education learning. The purpose of this study was to determine the Cat-Mice Game on improving students' locomotor movements. After obtaining permission from the faculty, supervisor and school. The study was conducted by providing treatment using the Cat-Mice Game. The study was conducted at SDN Cilengkrang Sumedang Utara, the sample in this study was class IV consisting of 20 students.

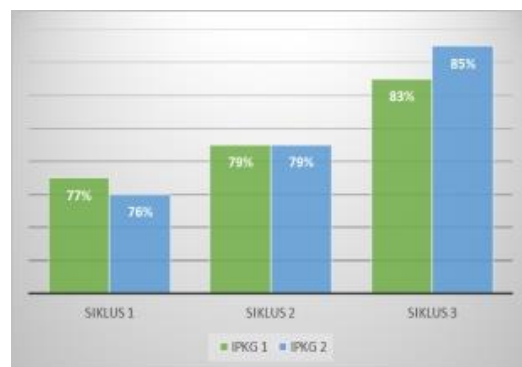


Figure 1.1 IPKG 1&2 Assessment Diagram

It can be seen in **Figure 1.1** above that in the IPKG 1&2 assessment there was an increase in each cycle, and it was concluded that this cat-and-mouse game could improve students' locomotor movements.

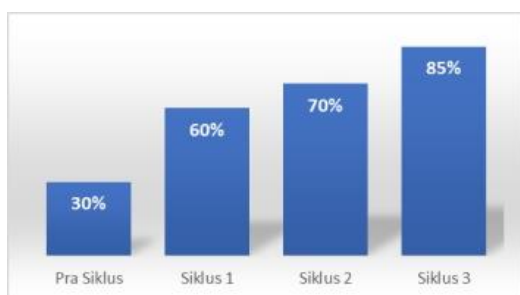
Table 1.1 Locomotor Movement Test Results in Each Cycle

perce ntage	categor y	cycle I	cycle II	cycle III
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85-100	A(excellent)	4 student	2 student	3 student
70-84	B (proper)	10 student	10 student	14 student
55-69	C (Enough)	6 student	6 student	3 student
<55	D (less)	-	2 student	-
amount		100%	100%	100%

As seen in **Table 1.1**, it shows that there is a significant influence or change towards the better in the use of learning using the cat-and-mouse game in improving students' locomotor movements, because when seen from the results of learning the game, there is an increase in each cycle that leads to a better direction.

Figure 1.2 Graph of Locomotor Movement Test Results in Each Cycle



It can be seen in **Table 1.2** regarding the locomotor movement test of students in learning the cat-and-mouse game, the percentage of students who completed the learning based on the minimum completion criteria (KKM) has increased. In the pre-cycle, 30% of

students completed the learning. In cycle I, 60% of students completed the learning. In cycle II, 70% of students completed the learning. And in cycle III, 85% of students completed the learning. Therefore, the research was stopped in cycle III because the completion criteria had been achieved, which was more than 80%.

Table 1.2 Comparison of Initial Test Results with Results That Have Been Given Actions by Cat-Mice Games Can Improve Students' Locomotor Movements

category	initial test	final test
succeed	30%	85%
not successful	70%	15%

Thus, from the results of Table 1.2, improving locomotor movements in the cat-and-mouse game is very helpful for students IV of Cilengkrang Elementary School, North Sumedang.

DISCUSSION

The results of the research conducted are discussed based on the identified problems, namely the lack of student locomotor movements in physical education learning. The purpose of this study was to determine the Cat-Mice Game on improving student locomotor movements. After obtaining permission from the faculty, supervisor and school. The study was conducted by providing treatment using the Cat-Mice Game. The study was conducted at SDN Cilengkrang Sumedang Utara, the sample in this study was class IV consisting of 20 students.

a. Discussion of Planning

From the analysis and implementation of learning reflection in each cycle, the results of the implementation of cycles I, II and III were obtained. The results of the research showed that the percentage of teacher planning indicators in cycle I was 77%, but these results still had not reached the target and researchers continued to improve planning for further action. In cycle II, the percentage of teacher planning indicators increased by 79%, although there was an increase, these results did not show the results set by the researcher and further action would be taken. in cycle III, there was an increase in teacher planning indicators of 83%. The performance of teachers who had been implemented in the cycle III action planning process was greater than in cycle I and cycle II. Thus, the research on the teacher performance planning stage was stopped in cycle III.

b. Discussion of Implementation

After analyzing and implementing learning reflections in each cycle, the results of the implementation of cycles I, II and III were obtained. The results of this study were obtained by seeing the percentage of implementation indicators in cycle I of 76% but these results had not reached the target expected by the researcher, therefore the researcher made improvements to the implementation of the next action. In cycle II, the percentage of teacher implementation increased from cycle I by 79%, but these results still did not reach the target expected by the researcher, therefore the researcher will make improvements to the implementation of teachers in the next action. In cycle III, the percentage of teacher implementation increased by 85%, which has reached the

target expected by the researcher, which is 80% and is greater than cycles I and II. Thus, the research on the implementation of teacher performance was stopped in cycle III.

c. Discussion of Student Activities

1. From the analysis and implementation of learning reflections in each cycle, the results of student activities from cycles I, II and III were obtained.
2. From the results of observations on the implementation of student activities, there was an increase in skills in accordance with the learning provided.
3. In the implementation of learning activities, students are more motivated and confident in carrying out learning activities better.

From the data obtained from the results of cycles I, II and III, it shows that there is a change towards the better or progress in learning the cat-and-mouse game can improve the locomotor movements of class IV students of SDN Cilengkran Sumedang Utara can increase in accordance with the objectives of this study.

CONCLUSION

This study aims to improve the locomotor skills of grade IV elementary school students through the implementation of traditional cat-and-mouse games. Classroom Action Research (CAR) was carried out in three cycles with stages of planning, implementation, observation, and reflection. The results of the study showed a significant increase in students' locomotor skills in each cycle. In the pre-cycle, only 30% of students

achieved minimal completion, while in cycle III it increased to 85%, exceeding the research target of 80%. In addition, teacher performance in planning and implementing learning also increased, with a success rate of 83% for planning and 85% for implementation in cycle III. The cat-and-mouse game has proven effective in increasing students' motivation, self-confidence, and motor skills. Thus, this study shows that traditional games can be used as a fun and useful learning method to improve the quality of physical education in elementary schools.

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