



## Improving Forward Roll Ability Through Method Learning By Playing In Grade IV Students, Elementary School 2 Kaluku Tinggi

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### ABSTRACT

This research is a Classroom Action Research (CAR) consisting of two cycles aimed at improving forward roll ability through game-based learning methods in Grade IV students of SD Inpres 2 Kaluku Tinggi. This study involved 21 students with a total sampling technique. Data were obtained through game-based learning treatment and observation of forward roll ability in floor gymnastics. The data analysis technique used descriptive statistics with percentages. The results showed an increase in forward roll ability from cycle I to cycle II. In cycle I, the completion rate reached 66% and increased to 95% in cycle II. The average value also increased from 74 in cycle I to 82 in cycle II. These findings indicate that game-based learning methods are effective in improving forward roll ability in Grade IV students of SD Inpres 2 Kaluku Tinggi.

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A. Conception and design of the study;  
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D. Manuscript preparation;  
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## INTRODUCTION

The research results show that the implementation of innovative learning models significantly impacts student learning outcomes. This confirms that well-designed learning strategies can improve students' conceptual understanding and mastery of the material. These findings indicate that the learning process is not solely determined by the material itself, but also by the delivery method, which actively engages students.

The improvement in learning outcomes in the experimental group can be explained through a constructivist theoretical approach, which emphasizes that knowledge is actively constructed by students. By using innovative learning models, students are allowed to explore, discuss, and discover their own understanding. This differs from conventional learning, which tends to position students as passive recipients of information.



Physical education, sports, and health are media to encourage physical growth, psychological development, motor skills, knowledge and reasoning, appreciation of values (mental-emotional-sportsmanship-spiritual-social attitudes), as well as the habituation of healthy lifestyles that lead to stimulating the growth and development of balanced physical and psychological qualities (Mustafa & Mediatama, 2023). Physical education in schools is a component of the National Education goals, where teachers must be able to choose the methods that must be applied in the learning process at school. Physical education, sports, and health taught in schools have a very important role, namely, providing opportunities for students to be directly involved in various learning experiences through selected and systematic physical, sports, and health activities.

Furthermore, innovative learning models have been proven to increase student motivation. The interaction between teachers and students in active learning creates a fun and challenging learning environment. Increased motivation encourages students to put more effort into understanding the material, thus positively impacting learning outcomes.

The results of this study also align with previous research showing that the use of active participation-based learning models can improve learning outcomes. For example, research conducted by Riyana et al. (2024) and Syahwaldi et al. (2024) found that implementing participation-based learning can improve creativity, critical thinking, and conceptual understanding. This reinforces the finding that innovative learning models are a key factor in improving educational quality.

In terms of social skills, the implementation of innovative learning models provides opportunities for students to collaborate and communicate in groups. This collaboration not only improves understanding of the material but also hones teamwork, responsibility, and self-confidence. Thus, innovative learning models impact not only cognitive aspects but also character development in students.

However, this study also found that not all students responded optimally to the innovative learning model. Some students accustomed to conventional learning tended to have difficulty adapting. This suggests that teachers need to provide guidance and adjustments so that all students can experience the same benefits. In other words, the effectiveness of the learning model is also influenced by the readiness of both teachers and students to implement the strategy.

Overall, this research underscores the importance of innovation in the learning process. Teachers serve not only as transmitters of material but also as facilitators capable of creating an active, interactive, and collaborative learning environment. Therefore, selecting the right learning model is a strategic step in improving the quality of education and student learning outcomes.

## **METHODS**

This type of research is experimental research with a pretest-posttest control group design. This design was chosen because it allows researchers to compare student learning outcomes before and after treatment, both in the experimental and control groups.

## Population and Sample

The study population was all eighth-grade students at the school where the study took place. Purposive sampling was used, selecting two classes as subjects. One class was designated as the experimental group, receiving treatment in the form of an innovative learning model, while the other served as the control group, using conventional learning.

## Research Instruments

The instrument used was a learning outcome test in the form of objective questions that had been validated by subject matter experts. Instrument validity was tested using expert judgment, while instrument reliability was assessed using Cronbach's alpha. This instrument was used during the pretest and posttest to measure changes in student learning outcomes.

## Research Procedures

The research was carried out in several stages, namely:

1. Preparation includes preparing learning tools, preparing test instruments, and testing instruments.
2. Implementation of the Pretest, given to both groups (experimental and control), to determine the initial abilities of students.
3. Treatment Administration, at this stage, the experimental group was taught using an innovative learning model, while the control group used a conventional learning model.
4. Implementation of the Posttest, given after treatment, to measure student learning outcomes.

## Data Analysis Techniques

The research data were analyzed using the Independent Sample T-Test (T-Test) with a significance level of 0.05. This test was used to determine the differences in student learning outcomes between the experimental and control groups after being given treatment. Before conducting the t-test, prerequisite tests were first conducted in the form of normality and homogeneity tests to ensure the data met the assumptions of parametric statistical analysis. The practical test covered three aspects: affective, cognitive, and psychomotor. Using the formula:

$$P = x 100\% \frac{F}{N}$$

## RESULTS AND DISCUSSION

### Result

The results of this study are field observations regarding the improvement of forward roll abilities in Grade IV students of SD Inpres 2 Kaluku Tinggi, Bantaeng Regency, through game-based learning methods carried out in 2 meetings, namely cycle I and cycle II.

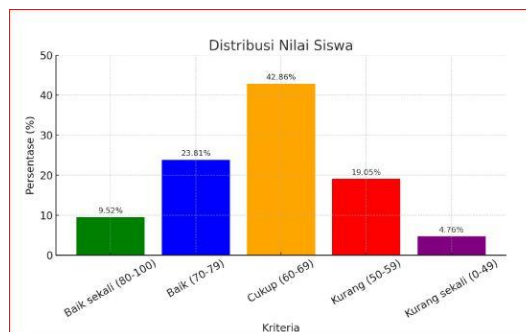
## Initial Conditions

The following is the initial data on the results of learning floor gymnastics, especially forward rolls, for fourth-grade students at SD Inpres 2 Kaluku Tinggi before conducting the research.

Mark	Criteria	Number of Students	Presentation
80 - 100	Very well	2	9.52%
70 - 79	Good	5	23.81%
60 - 69	Enough	9	42.86%
50 - 59	Poor	4	19.05%
0 - 49	Very Poor	1	4.7%
<b>Amount</b>		<b>21</b>	<b>100%</b>

Based on the table above, it shows that the initial data on the forward roll ability of fourth grade students of SD Inpres 2 Kaluku Tinggi, Bantaeng Regency is in the "very poor" category of 4.76% (1 student), the "poor" category of 19.05% (4 students), the "sufficient" category of 42.86% (9 students), the "good" category of 23.81% (5 students), and the "very good" category of 9.52% (2 students). Based on the largest percentage, namely 42.86% in the sufficient category, it can be concluded that the forward roll ability of fourth-grade students of SD Inpres 2 Kaluku Tinggi, Bantaeng Regency, is in the sufficient category.

Based on the frequency distribution in the Table above, the forward roll ability of fourth-grade students at SD Inpres 2 Kaluku Tinggi can be presented in Figure 1 as follows:



**Figure 1.**

Frequency distribution of student grades

## Discussion

This classroom action research was conducted in two cycles, each with planning, action, observation, and reflection stages. In cycle I, the learning outcomes of the forward roll ability using the game-based learning method showed an improvement compared to the pre-cycle, although it did not reach the completion target. Of the 21 students, 15 (66%) were declared complete, while 6 students (34%) were not. The observation results also showed weaknesses, such as less-than-optimal initial movements, coordination errors, and limited understanding of the technique at the end of the forward roll.

The reflection on cycle I emphasized the need for improvements to learning strategies, particularly in motivating students to be more serious, pay attention to

teacher explanations, and improve the accuracy of movement techniques. Based on this reflection, an improvement plan was developed for cycle II, emphasizing the use of modified media, exercise variations, and direct feedback.

In cycle II, the learning process was more effective. Students were more enthusiastic, serious, and able to follow instructions well. Observations showed a significant increase in learning activities. Of the 21 students, 20 (95%) were declared to have completed the learning process, while only 1 student (5%) had not achieved learning completion. This shows that the game-based learning method successfully created a more enjoyable learning atmosphere and was effective in improving motor skills. This is in line with the statement of Widiyatmoko & Hudah (2020) that the game-based learning model can increase student motivation and participation in physical education (PJOK) learning.

Reflection on cycle II showed that the weaknesses in cycle I had been corrected. Students had a better understanding of the stages of the forward roll movement, from the beginning, through the execution, to the final movement. These results support Yuliana's (2021) findings, which assert that game strategies are effective in developing basic motor skills because they provide hands-on learning experiences in a fun atmosphere. Therefore, the learning completion target of  $\geq 80\%$  was achieved in cycle II, with the class average score increasing to 82.

Furthermore, this study also supports the findings of Hidayat et al. (2019), who stated that modified games in floor gymnastics lessons can improve students' technical errors, particularly in the coordination of initial and final movements. In this study, students' weaknesses in cycle I related to leg thrust and landing technique were successfully minimized through improved learning in cycle II.

Overall, this study demonstrates that the application of game-based learning methods can improve the forward roll learning outcomes of fourth-grade students at SD Inpres 2 Kaluku Tinggi. This improvement aligns with motor learning theory, which emphasizes the importance of direct experience, repetition, and consistent feedback for mastering basic movement skills. A fun learning environment motivates students to try, correct mistakes, and gradually master floor gymnastics skills.

## CONCLUSION

Based on the research results and discussions that have been described, it can be concluded that, through game-based learning methods, the ability to roll forward in PJOK learning for fourth-grade students of SD Inpres 2 Kaluku Tinggi can be improved. The improvement in forward roll ability can be seen from the scores in cycles I to II. In cycle I, the completion score was 66%, and in cycle II, it became 95%. The average score for forward roll ability also increased, namely, in cycle I it was 74, and in cycle II it became 82.

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