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The Effect of The Demonstration Learning Model On The Learning Outcomes of Forward Roll In Male Students of Grade V of Darmaraja 1 State Elementary School In The 2023/2024 Academic Year

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ABSTRACT

This research is motivated by one of the Physical Education subject matters that elementary school students must master. One of the floor exercise movements that is important for students to learn is the front roll. The front roll is a movement of rolling the body forward by relying on the nape, back, waist and pelvis in sequence. The demonstration learning model is a learning model that has the potential to overcome problems. The demonstration learning model emphasizes direct demonstration by the teacher regarding the steps or stages in carrying out a skill regarding the demonstration learning model. The general aim of this research is to examine the effect of applying the demonstration learning method and improving front roll learning outcomes. The method that the author uses in this research to test the truth of the hypothesis that has been proposed is the experimental method. The population in this study was male students in class V at SD Negeri Darmaraja 1, totalling 30 people, and the author used a sample of 30 people in this study. This research data was collected through a front roll test.

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INTRODUCTION

Physical education (PE) is a fundamental component of elementary education that supports the holistic development of students, encompassing physical, cognitive, social, and emotional domains. Among the core objectives of PE is to instil motor skills and promote physical literacy from an early age (Logan et al., 2018). Gymnastics, as a primary component of PE, plays a crucial role in developing body control, balance, coordination, and flexibility (Rudd et al., 2015). These attributes are essential for lifelong participation in physical activity and sports.

Forward rolls, one of the foundational movements in gymnastics, are typically introduced in the early stages of physical education. Mastery of the forward roll requires proper technique, spatial awareness, and motor coordination (Ayvazoglu et al., 2017).

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Despite being a basic skill, forward rolling can be challenging for young learners, especially when they lack guidance in technique or confidence in movement execution. Therefore, selecting appropriate teaching models is essential for facilitating the acquisition of these fundamental gymnastic skills.

One pedagogical approach that has gained significant traction in physical education is the demonstration learning model, which emphasizes the visual presentation of skills by teachers or peers. This model is grounded in the theory of observational learning proposed by Bandura (1977), suggesting that learners acquire new behaviors by watching others perform them. In PE settings, demonstrations allow students to observe the correct form, sequence, and rhythm of movements before attempting them independently.

Studies have shown that visual demonstration improves skill acquisition in motor learning by providing learners with a mental model for replication (Magill & Anderson, 2017). Particularly in elementary schools, where cognitive abstraction may still be developing, demonstration helps bridge the gap between instruction and execution (Arifin et al., 2021). Demonstration-based learning is also beneficial for tasks that involve complex motor patterns, such as forward rolling, where improper technique can result in ineffective movement or injury.

At the elementary school level, especially in grade V, where students are typically between 10–11 years old, physical development supports the learning of gymnastic skills. However, differences in instructional strategies can significantly influence how well students learn and retain these skills (Ward et al., 2016). Therefore, selecting effective instructional models tailored to students' developmental needs is imperative for enhancing PE learning outcomes.

Despite its recognised importance, physical education—particularly gymnastics instruction is often underemphasized in elementary schools. Teachers may rely on traditional, lecture-based approaches that lack active engagement or proper technique modelling (Casey & Goodyear, 2015). In such cases, students may struggle to internalize movement mechanics, leading to poor performance outcomes and disengagement from physical activity.

At Darmaraja 1 State Elementary School, teachers have observed varied proficiency in gymnastic skills among Grade V male students, particularly in executing the forward roll. Many students demonstrate hesitation, improper rolling technique, and a lack of control during execution. These issues suggest a disconnect between instructional delivery and student understanding. The standard teaching model used—verbal instruction followed by practice—may not be adequate for developing this complex motor skill.

Given these challenges, there is a need to explore more effective teaching strategies, such as the demonstration learning model, which may offer a more tangible and engaging way for students to learn and practice forward rolls.

A substantial body of research exists on motor learning and instructional strategies in physical education, but relatively few studies have focused on the application of the demonstration learning model in gymnastics skills among elementary school students.

Most existing studies are conducted at the secondary or tertiary levels, with less attention paid to younger learners who are at the critical stage of developing fundamental movement patterns (Raiola, 2017).

Moreover, within the Indonesian context, limited empirical evidence exists to validate the use of demonstration learning in improving specific gymnastic skills such as the forward roll. Previous studies have generally examined overall physical activity levels or general teaching strategies without a focus on skill-specific outcomes (Wijaya et al., 2020). Thus, there is a lack of focused, data-driven research assessing how demonstration impacts the learning outcomes of specific gymnastic techniques in Indonesian elementary schools.

This study offers a novel contribution by examining the effect of the demonstration learning model on the learning outcomes of forward roll skills in male students at Darmaraja 1 State Elementary School. It is among the few studies that explore skill-specific outcomes of a particular instructional method in a real-world educational setting, targeting a specific demographic—Grade V male elementary students.

The study also contributes to the growing body of knowledge on pedagogical innovations in physical education by offering empirical evidence from Indonesia, where research on gymnastics pedagogy remains underrepresented. Additionally, it integrates pre-test and post-test comparisons to measure the direct impact of the demonstration model, offering a clear evaluation of its effectiveness compared to traditional teaching approaches.

Furthermore, the research aligns with the broader educational goals of Merdeka Belajar and Profil Pelajar Pancasila, which emphasize active, student-centered learning and competency development. By incorporating visual demonstration as an instructional tool, the study supports pedagogical practices that are both inclusive and adaptive to the developmental needs of students.

Based on the foregoing discussion, this study aims to investigate the effect of the demonstration learning model on the learning outcomes of forward roll skills among male Grade V students of Darmaraja 1 State Elementary School in the 2023/2024 academic year. The central research question is: Does the demonstration learning model significantly improve students' forward roll performance compared to traditional instruction methods?

This study employs a quantitative approach using an experimental design with pre-test and post-test assessments. The findings are expected to provide valuable insights for physical education teachers, curriculum developers, and policymakers in enhancing the effectiveness of instructional models used in primary schools. Ultimately, the study seeks to contribute to the improvement of physical education pedagogy by promoting innovative, evidence-based teaching strategies tailored to students' developmental stages.

METHODS

Method is a way that is systematically arranged and well thought out to obtain or achieve a goal, while research is a careful examination or research on a particular object.

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To test the truth of the hypothesis put forward in this study, an experimental method was used, which was carried out by the author based on the problem being studied, namely, demonstrating the demonstration learning method on the results of learning the front roll. In this study, the author used a one-group pretest-posttest design. The sampling technique used by the researcher in this study was saturated sampling. According to the statement (Sugiyono, 2022), Saturated sampling is a sampling technique when all members of the population are used as samples. This type of analysis is often done when the population is relatively small, less than 30 people, or when researchers want to make generalizations with very small errors. Another term for saturated sampling is census, where all members of the population are sampled.

To obtain research data, a research instrument was used in the form of a front roll test using an assessment rubric with the following steps:

Table 1.
Front Roll Assessment Rubric

No	Movement Aspects	Indicator	Points 1	2	3	4
1	Prefix	The participant's ankles show excellent balance. The correct starting position is the body stretched out with the feet and hands reaching for the floor.				
2	Posture	The student's body shows excellent flexibility during the movement. Use of core muscles to maintain stability and flexibility				
3	Hand gesture	Hands are placed correctly, providing sufficient support. Hand movements are coordinated with body movements to avoid injury.				
4	Final Stance	Students can end the movement with stability and balance.				
Number of points						

Description: The scoring method to be used as data in research is the total value/points of the four aspects of movement above. The highest value is 28, while the lowest value is 7.

Table 2.
Category Value

Point	Category
<7 Forward roll movement	Poor
8-13 Forward roll movement	Fair
14-20 Forward roll movement	Good
21-28 Forward roll movement	Excellent

RESULTS AND DISCUSSION

The researchers collected data in this study on how well male fifth-grade students at Daramaraja 1 Elementary School in Sumedang could do forward rolls in floor gymnastics after using the demonstration learning method. Once the data was gathered, they processed and analyzed it using statistical methods, including normality testing, Lieliefors, significance tests, and hypothesis testing, to find answers to the research

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questions and to confirm the proposed hypothesis. The results can be seen in Table 2 below:

Table 2.
Value and Standard Deviation Front Roll Test

Type	Mean Test	Standard Deviation
Front roll gymnastics initial test	9,6	2,28
Front roll gymnastics final test	17,96	4,52
Learning results	8,36	2,24

Table 3.
Test Results for Normality of Test Data
Front Roll Gymnastics

Type	L-count	L-table	Result
Front roll gymnastics initial test	0,1329	0,187	Normal
Front roll gymnastics final test	0,1422	0.187	Normal

Based on the table above, it can be seen that the L count value of the initial test and the final test of both sample groups is smaller than the L table value at the real level (α) = 0.01, meaning that the data is normally distributed. After it is known that the data from each test is normally distributed, the next step is to test the increase using the t-test. The following table presents the results of the increase test calculation for the two sample groups:

Table 4.
Significance Test Results

T -count	T -table	Result
20,44	2,462	Significant

According to the table above, the t-table value for a t-count group at a significance level (α) of 0.01 with degrees of freedom (n-1) equal to 29 is 2.462. Therefore, the t-count exceeds the t-table interval limit, as indicated by the comparison (t-count > t-table: 20.44 > 2.462). So it can be interpreted that there is a significant difference after being given treatment using the demonstration learning method. The following are the results of the improvement test for the front roll in floor gymnastics.

Improvement = $\frac{MD}{Mpre} \times 100\%$

$= \frac{8,36}{9,6} \times 100\%$

$= 87,08\%$

So the magnitude of the influence of the demonstration learning method on the learning outcomes of forward roll gymnastics in male students of grade V of SD Negeri Darmaraja 1, Sumedang, in the 2023/2024 academic year is 87%.

Based on data processing and data analysis carried out by the author on the results of student tests, there was an increase in the basic forward roll movement. This can be seen in Table 4, where the average value of the initial test was 9.6, while the final

test was 17.96, so that there was a difference of 2.28. This shows that there was an increase in students' basic movements after being given treatment.

In addition to proving the increase in students' basic movements, the author conducted an increase test. This can be seen in Table 4, which shows significant results at the real level (α) = 0.01 in db (n-1) = 29; the t-table was obtained at 2.462. Thus, tcount is outside the ttable interval limit (tcount > ttable, namely 20.44 > 2.462). So it can be interpreted that there is a significant difference after being given treatment using the demonstration learning method.

CONCLUSION

Based on the results of research conducted on male students in grade V at SD Negeri Darmaraja 1 Sumedang in the 2023/2024 academic year regarding the influence of the demonstration learning method on the learning outcomes of forward roll gymnastics, the author can conclude the following:

1. The demonstration learning method has a positive effect on the learning outcomes of forward rolls in floor gymnastics for male students of grade V of SD Negeri Darmaraja 1, Sumedang, in the 2023/2024 academic year.
2. The influence of the demonstration learning method has a significant effect on the learning outcomes of forward rolls in floor gymnastics for male students of grade V of SD Negeri Darmaraja 1, Sumedang, in the 2023/2024 academic year.

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