



Fifth Graders' Knowledge of the Backward Roll at Pertiwi Private Elementary School, Medan

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Abstract

Objectives:

This study aims to determine the level of knowledge among fifth grade students at Pertiwi Private Elementary School, Medan, regarding the backward roll in floor gymnastics.

Materials and Methods:

This is a quantitative descriptive study employing a survey method, with data collected via a 30 item multiple choice test. The sample consisted of 29 fifth grade students from Pertiwi Private Elementary School, Medan, selected using a total sampling technique

Results:

The results indicate that the students' knowledge levels regarding the backward roll fell into the following categories: very high at 34% (10 students), high at 59% (17 students), moderate at 7% (2 students), low at 0% (0 students), and very low at 0% (0 students).

Conclusions:

This it can be concluded that the majority of fifth grade students at Pertiwi Private Elementary School, Medan, possess a high level of knowledge regarding the backward roll in floor gymnastics.

Keywords: Knowledge; Floor Exercise (Backward Roll); Elementary School Students.

Introduction

Physical education is an educational approach that uses specific sports or physical activities to achieve learning objectives. Through physical education, students acquire knowledge, motor skills, healthy lifestyle habits, and improved physical fitness and mental well being. Essentially, Physical Education, Sports, and Health (PJOK) is education through physical activities as a means of achieving holistic personal development. However, the development of skills and improvement of physical abilities are also important educational objectives. Through PJOK, students are introduced to physical activities, including movement skills.

One of the educational levels that provides PJOK is elementary school. Teachers are required to consider various elements in PJOK learning, such as students' characteristics, learning materials, facilities and infrastructure, and evaluation factors. Some subjects in schools are taught theoretically, while others combine theoretical and practical learning. PJOK is one of the subjects that integrates both theoretical and practical learning. Basic movement skills, sports and game techniques, the development of values such as sportsmanship, honesty, and cooperation, as well as the habituation of healthy lifestyles are aspects that should be included in the learning process.

At the elementary school level, children begin to learn various skills and knowledge. Elementary school teachers are expected to teach basic motor skills, movement knowledge, techniques, tactics, and healthy living practices as part of the physical education curriculum. Conventional classroom education involves theoretical learning and practical exercises that encompass social, emotional, intellectual, and physical aspects. According to Depdiknas (2024), the scope of physical education subjects in elementary schools includes games and sports, developmental activities, gymnastics, rhythmic activities, aquatic activities, outdoor education, and health.



Gymnastics is one of the sports taught in the physical education curriculum at the elementary school level. The gymnastics activities taught include floor gymnastics and rhythmic gymnastics. Floor gymnastics can help students become more physically active and healthy. In addition, floor gymnastics can improve courage and self confidence while developing strength, speed, agility, balance, endurance, and confidence.

Floor gymnastics is a form of gymnastics performed on a mat and involves movements such as rolling, jumping, leaping, rotating in the air, supporting the body with the hands or feet to maintain balance, and jumping forward and backward. Examples of floor gymnastics movements include the bridge, forward roll, backward roll, candle stance, somersault, airplane pose, handspring, tiger jump, and others. This study focuses on the backward roll movement at SD Swasta Pertiwi Medan.

Based on observations, students frequently perform backward rolls using improper techniques, such as failing to tuck the head downward in the initial position, placing the head directly on the mat, failing to maintain a straight body position while rolling, and failing to fully straighten the legs in the final position. In addition, students have limited theoretical understanding of the movement. This indicates that the aspects of the initial position, execution, final position, and conceptual understanding have not yet reached the expected level of competence, particularly among female students. This condition is caused by several factors, including a lack of self confidence due to excessive fear and insufficient understanding of the principles of the backward roll. Psychological factors and mental readiness greatly influence students' success in performing this movement.

The results of an interview with the PJOK teacher at SD Swasta Pertiwi Medan showed that many students had limited understanding of how to perform a backward roll. When the teacher explained the material, some students paid insufficient attention, and when asked to practice the movement, they felt afraid or believed that they were unable to perform it. In addition, the teacher placed greater emphasis on the psychomotor aspect, while the cognitive and affective aspects received less attention, thereby affecting the students' level of understanding.

PJOK teachers play an important role in improving students' knowledge and understanding. To achieve learning objectives and create an effective and efficient learning process, teachers need to create an enjoyable learning environment, particularly when teaching floor gymnastics movements such as the backward roll. The success of the learning process can be assessed through students' level of understanding, mastery of the material, and achievement of learning objectives. Low learning outcomes in physical education are strongly influenced by the learning process experienced by students. Therefore, physical education teachers must master the learning material and be able to present it in an engaging manner so that students' interest in learning can increase.

Materials and Methods

Study Design

This study employs a quantitative descriptive research design. The research method used is a survey design, with data collected using a multiple choice test instrument.

Study Participants

The population for this study consisted of 29 fifth grade students at Pertiwi Private Elementary School, Medan. The study employed a total sampling method, utilizing the entire population of fifth grade students at the school.

Study Organization

The instrument used in this study consists of multiple choice questions where a correct answer is assigned a value of 1 and an incorrect answer a value of 0 designed to gather information on respondents' knowledge regarding floor exercise back rolls, specifically focusing on the definition of the exercise and the technique for performing the back roll.

Statistical Analysis



After all data were collected, the data were analyzed using a descriptive quantitative technique to draw conclusions. The percentage was calculated using the formula proposed, where P represents the percentage, F represents the frequency, and N represents the total number of respondents. Before categorizing the data, the minimum and maximum scores, mean, and standard deviation were determined. The results were then presented in frequency tables, categorized into five levels, and illustrated using histograms. The categories were very high (81–100), high (61–80), moderate (41–60), low (21–40), and very low (0–20).

Results

The study assessed the knowledge level of 5th grade students at Pertiwi Private Elementary School, Medan, regarding the backward roll in floor gymnastics, using a 30 item multiple choice test. Field data analysis yielded the following results: a minimum score of 15, a maximum score of 29, a mean of 22.9655, a median of 23, a mode of 23, and a standard deviation (SD) of 3.0057. These results are presented in Table 1 below:

Table 1. Descriptive Statistics of Knowledge Levels Among 5th Grade Students at Pertiwi Private Elementary School, Medan, Regarding the Backward Roll in Floor Gymnastics

Statistics	
<i>N</i>	29
<i>Mean</i>	22,9655
<i>Median</i>	23
<i>Mode</i>	23
<i>Std. Deviation</i>	3,0057
<i>Minimum</i>	15
<i>Maximum</i>	29

The assessment norms regarding the knowledge level of Grade V students at SD Swasta Pertiwi Medan concerning the back roll in floor gymnastics are presented in Table 2 below:

Table 2. Knowledge Level Norms for Grade V Students at SD Swasta Pertiwi Medan in Back Roll Floor Gymnastics Instruction

No	Interval	Category	Frequency	%
1	81 – 100	very high	10	34
2	61 – 80	high	17	59
3	41 – 60	moderate	2	7
4	21 – 40	low	0	0
5	0 – 20	very low	0	0
Total			29	100

The table above shows that the knowledge level of 5th grade students at SD Swasta Pertiwi Medan regarding the backward roll in floor gymnastics falls into the following categories: very high at 34% (10 students), high at 59% (17 students), moderate at 7% (2 students), low at 0% (0 students), and very low at 0% (0 students). Therefore, it can be



concluded that the majority of 5th grade students at SD Swasta Pertiwi Medan possess a high level of knowledge regarding the backward roll in floor gymnastics. In this study, the students' knowledge level regarding the backward roll was assessed based on their understanding of the definition of gymnastics and the techniques involved in performing the backward roll.

Descriptive statistics regarding the knowledge level of Grade V students at Private Elementary School Pertiwi Medan concerning the backward roll in floor gymnastics specifically regarding the factor of the definition of gymnastics showed a minimum score of 6, a maximum score of 12, a mean of 9.9310, a median of 10, a mode of 10, and a standard deviation (SD) of 1.6460. These results are presented in Table 3 below:

Table 3. Descriptive Statistics for the Gymnastics Definition Factor

Statistics	
<i>N</i>	29
<i>Mean</i>	9,9310
<i>Median</i>	10
<i>Mode</i>	10
<i>Std. Deviation</i>	1,6460
<i>Minimum</i>	6
<i>Maximum</i>	12

When presented according to assessment norms, the level of knowledge among Grade V students at Pertiwi Private Elementary School, Medan regarding the definition of gymnastics in the context of learning the backward roll is shown in Table 4 below:

Table 4. Assessment Norms for the Gymnastics Definition Factor

No	Interval	Category	Frequency	%
1	81 – 100	very high	21	72
2	61 – 80	high	5	17
3	41 – 60	moderate	3	10
4	21 – 40	low	0	0
5	0 – 20	very low	0	0
Total			29	100

The table above shows that the knowledge level of Grade V students at Pertiwi Private Elementary School, Medan, regarding the concept of gymnastics specifically within the context of learning the backward roll falls into the following categories: very high at 72% (21 students), high at 17% (5 students), moderate at 10% (3 students), low at 0% (0 students), and very low at 0% (0 students).

Descriptive statistics regarding the knowledge level of Grade V students at Pertiwi Private Elementary School, Medan, concerning the technique of performing the backward roll in floor exercise, yielded the following results: a minimum score of 9, a maximum score of 17, a mean of 13.0344, a median of 13, a mode of 13, and a standard deviation (SD) of 2.2596. These results are presented in Table 5 below:



Table 5. Descriptive Statistics for the Backward Roll Technique Factor

Statistics	
<i>N</i>	29
<i>Mean</i>	13,0344
<i>Median</i>	13
<i>Mode</i>	13
<i>Std. Deviation</i>	2,2596
<i>Minimum</i>	9
<i>Maximum</i>	17

When presented according to assessment norms, the level of knowledge among Grade V students at Pertiwi Private Elementary School, Medan, regarding the technical factors of performing the backward roll in floor gymnastics is shown in Table 6 below:

Table 6. Assessment Norms for Technical Factors of Performing the Backward Roll

No	Interval	Category	Frequency	%
1	81 – 100	very high	7	24
2	61 – 80	high	16	55
3	41 – 60	moderate	6	21
4	21 – 40	low	0	0
5	0 – 20	very low	0	0
Total			29	100

Based on the table above, the knowledge level of Grade V students at Pertiwi Private Elementary School, Medan, regarding the technique for performing the backward roll in floor gymnastics falls into the following categories: very high at 24% (7 students), high at 55% (16 students), moderate at 21% (6 students), low at 0% (0 students), and very low at 0% (0 students).

Discussion

This study aimed to determine the level of knowledge of fifth grade students at SD Swasta Pertiwi Medan regarding the learning of backward rolls in floor gymnastics. The study was conducted using a multiple choice test consisting of 30 questions. Based on the research findings, the level of knowledge of fifth grade students at SD Swasta Pertiwi Medan regarding backward rolls in floor gymnastics was categorized as high. The results showed that the students' knowledge of backward rolls was categorized as very high at 34% (10 students), high at 59% (17 students), moderate at 7% (2 students), low at 0% (0 students), and very low at 0% (0 students). Therefore, it can be concluded that the knowledge of fifth grade students regarding backward rolls in floor gymnastics was in the high category. These results were considered satisfactory because the students were able to understand the material provided by the teacher. Limitations in the delivery of learning materials by the teacher did not significantly reduce the students' ability to understand the material.



During the learning process, teachers are required to be creative in delivering learning materials to students. Teachers play a major role in determining students' learning success. High levels of effort and enthusiasm are essential to achieving successful learning outcomes. Interesting delivery of learning materials can increase students' enthusiasm and prevent them from becoming easily bored during the learning process. The appropriate use of learning media can also make it easier for students to understand the material being presented. Learning media may include pictures or videos. The use of video based learning media has also been implemented by SD Swasta Pertiwi Medan during sports lessons, helping to supplement the learning materials and improve students' understanding. In detail, the measurement of the knowledge level of fifth grade students at SD Swasta Pertiwi Medan regarding backward rolls in floor gymnastics consisted of two factors: the understanding of gymnastics and the technique of performing a backward roll.

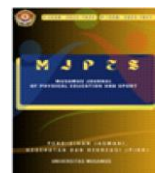
Based on the research findings, the knowledge level of fifth grade students at SD Swasta Pertiwi Medan regarding backward rolls in floor gymnastics based on the gymnastics understanding factor was categorized as very high. The results showed that 72% (21 students) were in the very high category, 17% (5 students) were in the high category, 10% (3 students) were in the moderate category, 0% (0 students) were in the low category, and 0% (0 students) were in the very low category. This result was supported by the school through teachers who had provided instruction on floor gymnastics. In addition to school support, students also received support from their families, particularly their parents, who consistently reminded them to study. Furthermore, the learning media provided by the teacher helped increase students' knowledge of floor gymnastics, particularly backward rolls. However, some students still answered questions incorrectly regarding the gymnastics understanding factor. This was attributed to the limited direct delivery of learning materials by the teacher, which caused some students to experience difficulties in answering several questions provided by the researcher.

Based on the research findings, the knowledge level of fifth grade students at SD Swasta Pertiwi Medan regarding backward rolls in floor gymnastics based on the backward roll technique factor was categorized as high. The results showed that 24% (7 students) were in the very high category, 55% (16 students) were in the high category, 21% (6 students) were in the moderate category, 0% (0 students) were in the low category, and 0% (0 students) were in the very low category. This result was supported by the school through teachers who had provided instruction on floor gymnastics. A backward roll is a movement in which the body rolls backward in sequence, beginning with the hips, waist, back, and neck (Roji, 2004, p. 116). This factor included indicators of the preparation stage, movement stage, and final stage. Students provided more incorrect answers on this factor than on the first factor. This was because, when the teacher explained the learning material, many students were still playing on their own and therefore did not focus on the lesson. In addition, the limited provision of learning materials addressing cognitive and affective aspects resulted in students having insufficient understanding to answer the questions provided by the researcher.

Conclusions

Based on the analysis of the collected data and the subsequent discussion, it can be concluded that the majority of Grade V students at SD Swasta Pertiwi Medan fall into the following categories: very high at 34% (10 students), high at 59% (17 students), moderate at 7% (2 students), low at 0% (0 students), and very low at 0% (0 students). These findings indicate that the level of knowledge among Grade V students at SD Swasta Pertiwi Medan regarding the backward roll in floor gymnastics falls into the high category.

Acknowledgments



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Conflict of Interest

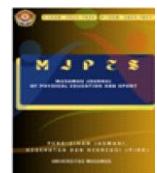
The authors declare no conflict of interest.

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