

Front Roll Skill Level of Fifth Grade Students at Madrasah Ibtidaiyah Muhammadiyah Jenggotan, Andong, Boyolali

Dhany Sulaiman¹, Nur Subekti², Nurhidayat Nurhidayat³

¹²³Fakultas Keguruan dan Ilmu Pendidikan, Universitas Muhammadiyah Surakarta, Indonesia.

E-mail: a810209147@student.ums.ac.id¹, ns584@ums.ac.id², nur574@ums.ac.id³

Abstract

This study aimed to describe the level of front roll skills among fifth-grade students at Madrasah Ibtidaiyah Muhammadiyah Jenggotan, Andong, Boyolali Regency. A quantitative descriptive design with a survey method was employed, involving all 20 students as research participants through total sampling. Data were collected using a front roll practical test assessing three aspects: starting position, movement execution, and finishing position, and were analyzed descriptively using mean and standard deviation. The results showed a mean score of 6.70 (SD = 1.53), indicating that students' front roll skills were generally in the low to moderate category. These findings suggest that students have not yet mastered the front roll skills optimally, highlighting the need for more structured and effective floor gymnastics instruction in physical education learning.

Keywords: Elementary Students, Floor Gymnastics, Front Roll Skills, Physical Education.

INTRODUCTION

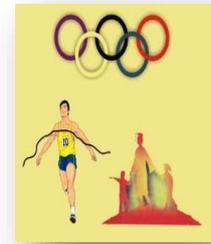
Physical education is an integral part of the school curriculum that plays an important role in developing students' potential holistically, including physical aspects, motor skills, intelligence, and character building (T. A. Prasetyo & Muhafid, 2022). Through physical activities, sports, and health education, students not only acquire fundamental movement skills but also develop values such as sportsmanship, self-confidence, and healthy lifestyles. In the 2013 Curriculum, physical education encompasses various activities, including major ball games, minor ball games, gymnastics, physical fitness, pencak silat, and swimming.

One of the important components in physical education learning is gymnastics, particularly floor gymnastics. Floor gymnastics involves movements such as rolling, jumping, turning, and supporting the body with the hands or feet, which are beneficial for developing strength, flexibility, and balance (Betty et al., 2024). At the elementary school level, basic floor gymnastics skills such as the front roll serve as an essential foundation for mastering children's fundamental movement skills (Ansar et al., 2024). However, in practice, many students still experience difficulties in mastering this movement.

The researcher's observations at Madrasah Ibtidaiyah Muhammadiyah Jenggotan indicate that most fifth-grade students have not yet understood the proper stages of performing a front roll. This condition has resulted in low skill levels, a lack of self-confidence, and fear of attempting the movement, particularly among female students who are concerned about the risk of injury. In addition, the physical education (PJOK) teacher at the school does not yet have baseline data regarding students' front roll skills, which limits the evaluation process and subsequent instructional follow-up. This situation indicates an urgent need to map students' front roll skill levels as a foundation for improving the learning process.

Empirically, similar problems have also been identified in previous studies, such as the research by Prasetyo and Muhafid (2022), which revealed variations in junior high school students' front roll skill levels, ranging from very skilled to less skilled categories. This finding reinforces the notion that mastery of front roll skills remains an issue across various levels of education.

Therefore, this study is important to conduct in order to determine the level of front roll skills among fifth-grade students at Madrasah Ibtidaiyah Muhammadiyah Jenggotan. The results are expected



to provide practical contributions for teachers in designing more effective learning strategies, as well as theoretical benefits as a scientific reference on basic floor gymnastics skills among elementary school students. The urgency of this research lies in its effort to present accurate data as a basis for evaluation and follow-up, thereby helping to improve the quality of physical education (PJOK) learning, particularly in floor gymnastics material.

METHODS

Type of Research

This study was conducted using a quantitative approach that focuses on the processing of numerical data to describe actual conditions in the field. The research design employed was quantitative descriptive, as the primary objective of this study was not to test a specific hypothesis but to provide a clear depiction of students' front roll skill levels. Through this design, the researcher was able to present objective data regarding variations in students' abilities to perform the front roll movement.

The research method employed was a survey method, in which data collection was carried out through skill tests and measurements directly related to floor gymnastics activities. The main focus of the test was on mastery of the front roll movement, as this movement is one of the basic skills in floor gymnastics that reflects aspects of flexibility, coordination, and students' courage. According to Sugiyono (2019) and Sutama et al (2022), the quantitative descriptive method is highly appropriate for research in the field of physical education, as it is capable of systematically and measurably describing students' skill achievements.

Time and Place of Research

This research was conducted at Madrasah Ibtidaiyah Muhammadiyah Jenggotan, located in Dukuh Jenggotan, Pranggong Village, Andong District, Boyolali Regency. The implementation of the study took place in August and was adjusted to the schedule of Physical Education, Sports, and Health (PJOK) classes, so that the data collection activities could be carried out optimally without disrupting the learning process of other subjects.

Population and Sample

The research subjects consisted of all fifth-grade students, totaling 20 students. Since the total population was fewer than 100 students, a total sampling technique was employed, in which all members of the population were included as research samples (Sutama et al., 2022). Through this method, the data obtained are considered more comprehensive and are able to represent the overall front roll skill abilities of fifth-grade students.

Operational Definition of Variables

The research procedure began with initial observations and coordination with the physical education (PJOK) teacher to arrange the schedule for administering the practical skill test. After all technical preparations were confirmed to be ready, the fifth-grade students were asked to participate in the front roll practical test by following the directions and instructions provided by the researcher. The assessment process was carried out systematically, referring to three main stages of performing the front roll: the preparation stage, the execution of the core movement, and the final stage. Each student received a score based on the indicators outlined in the previously established rubric, ensuring that the results obtained were more objective and measurable.

Research Procedure

The research instrument used was a front roll skill performance sheet adapted from the study by Prasetyo and Muhafid (2022). This instrument had undergone validity testing with a value of 0.832 and reliability testing with a coefficient of 0.768, indicating that it is sufficiently reliable and appropriate for assessing students' skills. The skill assessment focused on three main aspects: (1) the preparation stage, which includes the initial standing position, arm posture, and direction of gaze; (2) the movement execution stage, which assesses the use of the hands, head position, shoulder involvement, and body continuity during the roll; and (3) the final stage, which emphasizes the standing posture, arm position, and direction of gaze after completing the roll.



In this instrument, the maximum score that students can obtain is 9 points if all indicators are performed correctly, while the minimum score is 0 points if none of the indicators are met. Thus, this instrument not only provides an overview of the variation in each student's skill level but also serves as a clear reference for assessing the overall mastery of front roll movements among fifth-grade students at Madrasah Ibtidaiyah Muhammadiyah Jenggotan.

The equipment used in this study included mats, performance assessment forms, and stationery. Data were collected through a front roll practical test, in which each indicator was scored 1 if performed correctly and 0 if performed incorrectly.

The data collected in this study were analyzed using descriptive percentage analysis techniques. Furthermore, the data were processed to obtain the mean and standard deviation (SD), which were then categorized into five levels: "very good," "good," "moderate," "poor," and "very poor." Through this analysis, the study is expected to provide a clearer description of the front roll skill levels of fifth-grade students at Madrasah Ibtidaiyah Muhammadiyah Jenggotan, Andong, Boyolali. The percentage calculations were carried out using a predetermined formula to ensure that the results are more accurate and easy to interpret, as follows:

Table 1. Assessment Categorization Norms

Interval	Description
$X > M + 1,5 SD$	Very Good
$M + 0,5 SD < X < M + 1,5 SD$	Good
$M - 0,5 SD < X < M + 0,5 SD$	Moderate
$X < M - 1,5 SD < X < M - 0,5 SD$	Poor
$X < M - 1,5 SD$	Very Poor

Source: (Jariono et al., 2025)

Data analysis in this study was carried out descriptively through several stages. The results of the front roll practical test were grouped according to the assessment norms and then analyzed using simple statistical techniques to determine students' skill level categories. The analysis process was complemented by data verification and validation to ensure accuracy of the results. In addition, a participatory observation method was employed to directly observe students' mastery of the front roll technique, enabling the researcher to identify aspects that were already well performed as well as those that still need improvement.

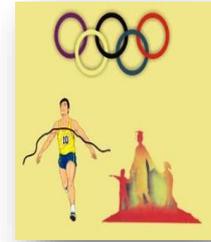
RESULTS AND DISCUSSION

Results

This study aimed to analyze the level of front roll skills among fifth-grade students at Madrasah Ibtidaiyah Muhammadiyah Jenggotan, Andong, Boyolali Regency. Data were collected through a front roll practical test administered to all research subjects, totaling 20 students. The test results were then processed and analyzed descriptively to obtain a comprehensive overview of students' ability to master the front roll movement. The results showed variations in students' scores, with the highest score reaching 9 points and the lowest score being 5 points. Descriptive statistical analysis produced a mean score of 6.70 with a standard deviation of 1.53, indicating differences in the level of front roll skill mastery among students. These findings suggest that students' abilities vary and require greater attention in the learning process. To clarify the distribution and spread of the test results, a table presenting each student's front roll skill achievement is subsequently provided"

Table 2. Results of the Front Roll Skill Test

Class Interval	Frequency	Percentage	Description
>8,98	3	15%	Very Good
7,47-8,97	5	25%	Good
5,94-7,46	6	30%	Moderate



4,41-5,93	6	30%	Poor
<4,41	0	0%	Very Poor

Based on the data in Table 2, it is known that out of the total 20 students who served as research samples, 3 students (15%) were classified in the very good category, 5 students (25%) in the good category, 6 students (30%) in the moderate category, and 6 students (30%) in the poor category. Based on these results, it can be concluded that the front roll ability of fifth-grade students at Madrasah Ibtidaiyah Muhammadiyah Jenggotan, Boyolali Regency, is generally still classified as low, particularly when viewed from the aspects of the starting position, execution process, and final position of the movement. The distribution of students' front roll abilities is further presented in the form of a pie chart in Figure 1.

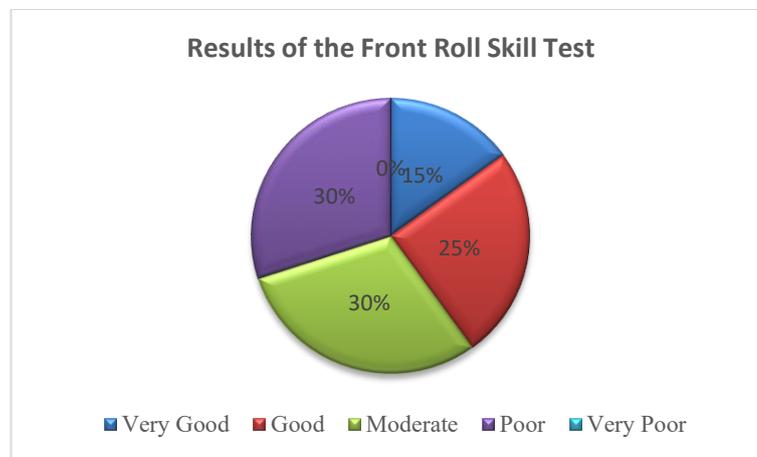


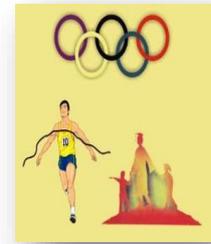
Figure 1. Front Roll Skill Test Results

Discussion

The results of the study indicate that the level of front roll skills among fifth-grade students at Madrasah Ibtidaiyah Muhammadiyah Jenggotan, Andong, Boyolali Regency, varies, but overall still tends to fall within the low to moderate categories. The mean score of 6.70 with a standard deviation of 1.53 indicates a fairly noticeable difference in students' abilities to master front roll skills. These findings suggest that students' readiness to perform the movement is not yet evenly distributed, both in terms of mastery of basic techniques and the coordination required to execute the front roll correctly and safely.

The distribution of the test results shows that the number of students who achieved the very good and good categories is still relatively limited, at 15% and 25%, respectively. Meanwhile, the majority of students fall into the moderate and poor categories, each accounting for 30%. This condition indicates that more than half of the students have not yet mastered the front roll skill optimally. The low level of mastery is presumed to be related to students' limited understanding of the stages and basic principles of the movement, particularly the starting position, execution, and final position. These three stages form a continuous sequence of movement; therefore, inaccuracy in any one stage will directly affect the overall quality of the movement.

In addition to technical aspects, the results of this study are also influenced by learning factors implemented at the school. Limited training frequency, the use of less varied teaching methods, and minimal utilization of instructional media or teaching aids are presumed to be factors contributing to the low level of students' skill mastery. Learning processes that are less contextual and demonstrative can make it difficult for students to visualize and practice the movements correctly. Furthermore, differences in students' basic physical conditions such as arm and abdominal muscle strength, flexibility, balance, as well as courage and self-confidence also contribute to the variation in the results obtained. Students



with better levels of physical fitness and movement coordination tend to demonstrate more optimal front roll techniques and thus achieve higher scores.

This study on front roll skills among fifth-grade students at Madrasah Ibtidaiyah Muhammadiyah Jenggotan aimed to portray students' basic motor abilities within the context of floor gymnastics learning. The front roll is a fundamental movement that requires coordination, strength, and courage in its execution (Ansar et al., 2024). In general, the profile of front roll skills among elementary school students tends to fall within the moderate category. This finding is consistent with the study by Prasetyo and Ahmad (2025), which reported that the majority of students were in the moderate category (43.90%) and that no students were classified in the very good category. The similarity in these result patterns indicates that floor gymnastics learning, particularly front roll instruction, still requires greater attention within the physical education (PJOK) curriculum at the elementary school level.

Furthermore, front roll learning outcomes are influenced not only by physical abilities but also by psychological factors. Saputro and Sistiasih (2025), emphasize a significant relationship between anxiety levels and learning outcomes, where lower anxiety contributes to better movement performance. In addition, self-efficacy, or students' belief in their own abilities, is an important factor in successfully performing body rotation in the front roll movement (Putri et al., 2024). This self-confidence can be enhanced through various approaches, one of which is mental training or the imagery method (Harimurti, 2018).

This study also provides an empirical contribution as it was conducted in a madrasah ibtidaiyah setting, which has distinct characteristics and challenges compared to public elementary schools, particularly in terms of the availability of facilities and infrastructure for gymnastics learning. Limited equipment, such as non-standard mats, can affect students' sense of safety and courage in performing front roll movements (Mukti et al., 2023). Therefore, the use of innovative learning media, such as inclined planes, has been proven effective in helping improve front roll skills among students who still experience difficulties during the initial stages of learning (Sutoro, 2023).

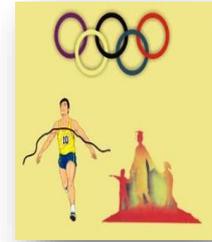
Based on the variation in students' skill levels identified in this study, the implementation of more structured and systematic learning models is required. Putri et al (2024) recommend the use of the Direct Instruction learning model, which is considered effective for mastering procedural skills such as the front roll (Sunaryo et al., 2025). In addition, game-based learning approaches and the use of audio-visual media, such as modified "snakes and ladders" games, can create a more enjoyable learning atmosphere, reduce students' tension, and enhance motivation and enthusiasm for practice (Nasution et al., 2024). With the application of appropriate instructional strategies, it is expected that students' front roll skills can improve more optimally and evenly.

CONCLUSION

The study concludes that the front roll skills of fifth-grade students at Madrasah Ibtidaiyah Muhammadiyah Jenggotan are generally classified in the low to moderate category. This indicates that most students have not yet mastered the front roll movement effectively, particularly in the stages of the starting position, movement execution, and finishing position. These findings imply the need for physical education teachers to implement more structured, varied, and supportive learning strategies, including the use of appropriate instructional media, to improve students' mastery of front roll movement skills in floor gymnastics learning.

ACKNOWLEDGMENTS

The author would like to express sincere gratitude to all parties who contributed to the implementation and completion of this research. Appreciation is extended to the Principal of Madrasah Ibtidaiyah Muhammadiyah Jenggotan, Andong, Boyolali Regency, along with the Physical Education, Sports, and Health (PJOK) teachers, for granting permission, providing support, and offering assistance



throughout the research process. The author also gratefully acknowledges all fifth-grade students who participated actively and cooperatively in this study. In addition, thanks are conveyed to various individuals and parties who directly or indirectly provided input, motivation, and support, enabling this research to be carried out and completed successfully.

REFERENCES

- Ansar, C. S., Sahrani, A. Y., Muhammad, J., & Syam, M. S. (2024). *Kemampuan Roll Ke Depan Pada Siswa Sekolah Dasar*. 12(1), 65–72.
- Betty, J., Jusuf, K., & Santoso, J. A. (2024). *Hubungan Antara Percaya Diri Dengan Hasil Belajar Guling Depan Siswa SD*. 14(3), 169–176.
- Harimurti, R. S. (2018). *Peningkatan Keyakinan Diri Dan Hasil Belajar Guling Depan Melalui Latihan Imagery*. 6(1), 87–99.
- Jariono, G., Usman, A., Ihsan, A., & Nurhidayat, N. (2025). *Metode Penelitian Pendidikan Jasmani Dan Olahraga* (D. A. Ahmad (Ed.); 1st Ed.). Rajawali Pers.
- Mukti, F. N., Sunanto, S., Hidayat, M. T., & Susanto, R. U. (2023). *Pengaruh Penggunaan Matras Bidang Miring Terhadap Peningkatan Kemampuan Guling Depan Pada Mata Pelajaran Pjok Di Sdn 2 Nglurup Ponorogo*. 4(3), 530–535.
- Nasution, A. F., Rahman, A., Tarigan, F. N., & Ramadanisti, A. (2024). *Peningkatan Hasil Belajar Guling Depan Melalui Metode Resiprokal Dan Permainan Ular Tangga Di Sekolah Dasar*. 5(November), 1–9.
- Prasetyo, G. B., & Ahmad, N. (2025). *Tingkat Keterampilan Senam Lantai Guling Depan Pada Siswa Sekolah Dasar*. 6(2).
- Prasetyo, T. A., & Muhafid, E. A. (2022). *Profil Keterampilan Gerak Guling Depan (Senam Lantai)*. 3, 52–58.
- Putri, V. D., Betty, J., Jusuf, K., & Santoso, J. A. (2024). *Pengaruh Metode Audio Visual Terhadap Hasil Pembelajaran Guling Depan Pada Siswa Sekolah Dasar*. 14(4), 277–282.
- Saputro, B. A., & Sistiasih, V. S. (2025). *Hubungan Tingkat Kecemasan Terhadap Hasil Belajar Senam Lantai Guling Depan*. 4(2), 578–588. <https://doi.org/10.31316/Ijst.V4i2.6772>
- Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif, Dan R&G* (M. Dr. Ir. Sutopo. S.Pd (Ed.)). Alfabeta. www.cvalfabeta.com
- Sunaryo, K. E., Ridwan, M., Januarumi, F., & Wijaya, M. (2025). *Optimalisasi Model Pembelajaran Direct Intruction Terhadap Keterampilan Guling Depan Pada Siswa Sekolah Dasar*. 13(2), 499–506.
- Sutama, Hidayati, Y. M., & Novitasari, M. (2022). *Metode Penelitian Pendidikan*. Muhammadiyah University Press.
- Sutoro, S. (2023). *Penerapan Model Pembelajaran Langsung Dengan Media Bidang Miring Untuk Meningkatkan Gerak Dasar Guling Depan*.