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Analysis of Morning Exercise Activities on Children's Learning Readiness in School

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Analysis of Morning Exercise Activities on Children's Learning Readiness in School

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Abstract

Learning readiness is an important factor that affects the success of the learning process in elementary school students. Physical activities such as morning gymnastics are believed to be able to increase students' physical, mental, and emotional learning readiness. This study aims to analyze the implementation of morning gymnastics and its impact on the learning readiness of students in two elementary schools with different characteristics. This study uses a qualitative approach with a case study method carried out at SD Negeri Selaawi and SD Negeri Sukamaju. Data collection techniques are carried out through observation, interviews, and documentation involving students, teachers, and parents. The results of the study showed that there were differences in the frequency, timing, and management of morning gymnastics in the two schools. SD Negeri Selaawi carries out morning gymnastics in a more routine and structured manner than SD Negeri Sukamaju. These differences affect the level of student learning readiness, where students who participate in morning gymnastics consistently show better concentration, fitter physical condition, and more stable emotions. The findings of this study show that morning gymnastics has a positive impact on students' learning readiness in physical, mental, and emotional aspects. The novelty of this study lies in the comparative analysis of the implementation of morning gymnastics in two different schools so as to provide a more comprehensive picture of the influence of intensity and consistency of physical activity on students' learning readiness. The novelty of this study lies in its comparative analysis of two elementary schools, highlighting how differences in the intensity and structure of morning exercise programs influence students' multidimensional learning readiness, including physical, mental, and emotional aspects.

Keywords: morning gymnastics, learning readiness, physical activity, elementary school, qualitative studies.

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A. Introduction

Learning readiness is one of the main factors that affect the success of the learning process in elementary school students (Pratama et al., 2025). Learning readiness includes physical, mental, emotional, and social conditions that allow students to follow learning optimally (Daley et al., 2026). Students who have good learning readiness tend to understand the material more easily, are more focused, and are active in learning activities (Brown et al., 2026).

One of the efforts that can be made to increase learning readiness is through physical activity, physical activity has an important role in increasing students' learning readiness (Roig-Hierro et al., 2025; D. Zhang et al., 2023). Like morning gymnastics, morning gymnastics is a routine activity that is carried out before learning begins and aims to improve physical fitness while preparing students' mental state. This activity can help improve students' concentration, mood, and motivation to learn in class (Lozano-Lozano et al., 2020).

Various studies show that physical activity has a significant relationship with children's learning readiness. Gymnastics and movement activities have been proven to be able to increase student involvement, as well as develop social and motor skills (Nurlaelasari et al., 2024; Wahyudin et al., 2024). In addition, programmed physical activity can create a more positive learning atmosphere and increase students' mental readiness to receive learning (Daly-Smith et al., 2020; Ma et al., 2025). Other studies have also shown that students who are physically active have better concentration and higher material absorption abilities compared to less active students (W. Gao et al., 2025; Kwon et al., 2024).

Then, morning gymnastics activities also contribute to improving students' cognitive abilities and mental readiness. Physical activity can increase blood flow and oxygen to the brain, which has an impact on improving students' memory,

focus, and learning readiness (Simatupang et al., 2025; Sitanggang et al., 2025). In addition, gymnastics activities that are packaged in a fun way can increase motivation to learn and reduce stress levels in children (Marsuna et al., 2024).

However, the implementation of morning gymnastics in elementary schools still shows variations in terms of method, intensity, and consistency. This difference can be influenced by factors such as the school environment, culture, and support from the school and teachers. This condition causes the effectiveness of morning gymnastics in increasing students' learning readiness to also vary. In fact, there are still students who experience a lack of focus and drowsiness during learning even though they have participated in morning gymnastics activities (Belluardo et al., 2025; Haskell et al., 2025).

In addition, internal and external factors also affect students' learning readiness. Internal factors include students' motivation, interests, and psychological conditions, while external factors include the family environment, parental support, and socioeconomic conditions. Therefore, a comprehensive approach is needed in understanding students' learning readiness, including through the integration of physical activities such as morning gymnastics.

Previous research is generally still limited to one research object or location, so it has not provided a comprehensive picture of the comparison of the implementation of morning gymnastics in various schools. Therefore, this study was conducted in two elementary schools with different characteristics, namely SD Negeri Selaawi and SD Negeri Sukamaju in Sumedang Regency. Through this approach, it is hoped that a deeper understanding can be obtained about the differences in the implementation of morning gymnastics and its impact on students' learning readiness.

Thus, this research is important to

examine more deeply the role of morning gymnastics activities in improving the learning readiness of elementary school students, as well as as a basis for the development of educational programs that balance physical and academic activities.

However, previous studies tend to examine physical activity and learning readiness separately or within a single institutional context, leaving a gap in understanding how differences in implementation patterns influence students' readiness multidimensionally (Dinangsit et al., 2025). Most studies primarily focus on the general benefits of physical activity without exploring how variations in frequency, consistency, scheduling, and program structure contribute to differences in students' physical, mental, and emotional learning readiness (Risalah Samudra et al., 2025). In addition, limited comparative qualitative studies have investigated how school contexts shape the effectiveness of morning exercise activities in elementary education settings.

Therefore, this study offers a novel contribution by comparatively analyzing the implementation of morning exercise programs in two elementary schools with different activity structures and routines. This study not only examines the presence of physical activity programs, but also highlights how implementation intensity and consistency influence multidimensional learning readiness outcomes among elementary school students.

B. Methods

This study uses a qualitative approach with a case study method. This approach was chosen to deeply understand the phenomenon of morning gymnastics activities and their impact on students' learning readiness in the elementary school environment. Through a qualitative approach, researchers can comprehensively explore information related to experiences, perceptions, and real conditions that occur

in the field.

The participants in this study consisted of 24 students from grades V and VI, 4 physical education teachers, 4 homeroom teachers, and 8 parents from SD Negeri Selaawi and SD Negeri Sukamaju. Participants were selected using purposive sampling based on their direct involvement in morning exercise activities and the learning process.

The data collection techniques in this study include observation, interviews, and documentation. Observation was carried out directly to observe the implementation of morning gymnastics and the condition of students' learning readiness after participating in the activity. The aspects observed included student activity, enthusiasm level, physical condition, and student response when participating in classroom learning.

Interviews are conducted in a semi-structured manner to students, teachers, and parents. This interview aims to obtain more in-depth information about their perceptions, experiences, and opinions regarding the benefits of morning gymnastics on students' learning readiness. With this technique, researchers can explore data flexibly but remain directed according to the focus of the research.

In addition, documentation techniques are used to complete the research data. The documentation collected is in the form of photos of morning gymnastics activities, implementation schedules, school records, and other relevant supporting documents. This documentation data serves as supporting and reinforcing evidence from observations and interviews.

To ensure the trustworthiness of the findings, this study applied several validation strategies, including source triangulation, technique triangulation, member checking, and audit trail documentation. Member checking was conducted by confirming interview interpretations with participants to ensure data accuracy, while the audit trail was used to maintain transparency and consistency

throughout the data collection and analysis process.

The qualitative data obtained from interviews, observations, and documentation were analyzed using NVivo software through several coding stages. The first stage involved open coding to identify initial concepts and meaningful statements related to morning exercise activities and students' learning readiness. The second stage used axial coding to categorize and connect emerging themes, such as physical readiness, emotional readiness, implementation intensity, and school support. Finally, selective coding was conducted to integrate and interpret the relationships among themes in order to develop comprehensive findings regarding the influence of morning exercise activities

on students' multidimensional learning readiness.

C. Result and Discussion

This section presents the findings of the study regarding the implementation of morning exercise activities and their influence on students' learning readiness at SD Negeri Selaawi and SD Negeri Sukamaju. The findings were obtained through classroom observations, semi-structured interviews, documentation studies, and thematic analysis using NVivo software. The analysis focuses on differences in the implementation patterns of morning exercise activities, students' multidimensional learning readiness, and the interaction between internal and external factors that shape students' preparedness for classroom learning.

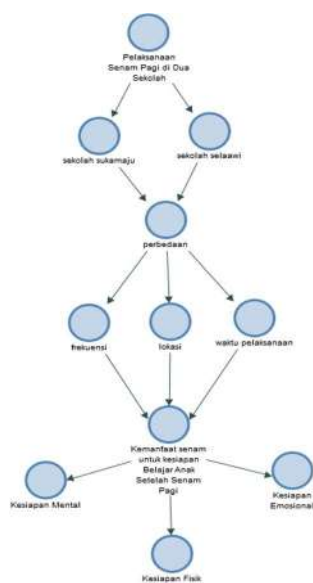


Figure 1 Differences Implementation of morning gymnastics activities in schools

The results indicate that both schools implemented morning exercise activities as part of school routines; however, significant differences were identified in terms of frequency, consistency, scheduling, and management structure. These differences contributed to variations in students' physical, mental, and emotional readiness before participating in classroom learning. Furthermore, the NVivo analysis revealed that learning

readiness is influenced not only by physical activity participation but also by the interaction between students' internal conditions and external environmental support. Therefore, this section discusses the findings descriptively and interpretatively to provide a comprehensive understanding of how structured morning exercise activities contribute to elementary students' learning readiness.

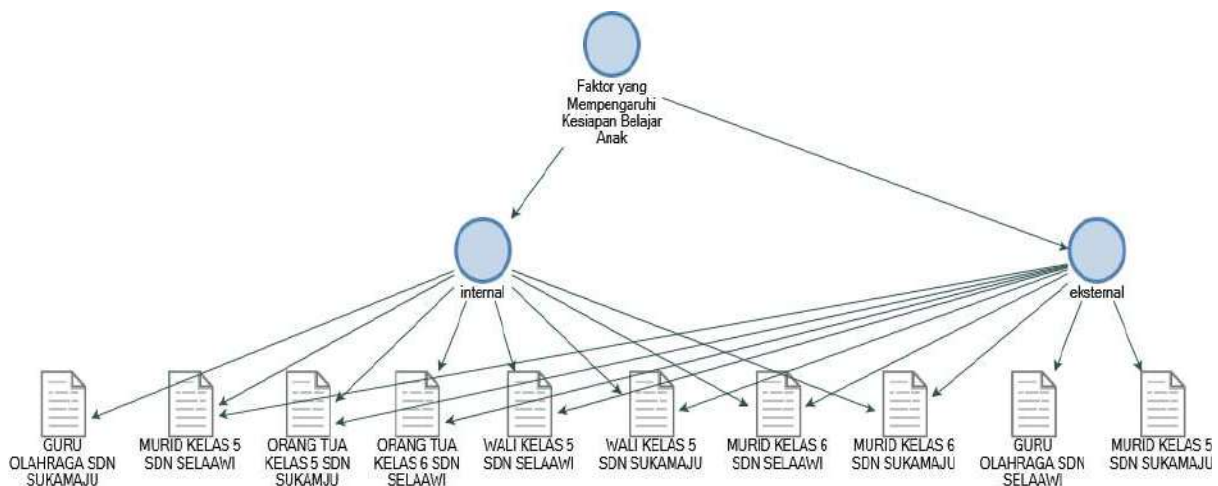
Table 1. Comparison Results from the image above

Aspects	SDN Sukamaju	Selaawi School
Implementation of Morning Gymnastics	Implemented	Implemented
Location	Different	Different
Implementation Time	Different (1x a week on Saturdays all participants participate in morning gymnastics)	Different (2x a week on Saturdays for gymnastics with all students, on Wednesdays for 5th grade and 6th grade in the second learning hour)
Impact of Learning Readiness	Students are better prepared to learn	Students are better prepared to learn
Emotional Readiness	Students feel more confident and emotionally more stable	Students feel more confident and emotionally more stable
Physical Readiness	Students feel healthier and fitter	Students feel healthier and fitter

Analysis using NVivo and also tables showed that there was a significant difference in the implementation of morning gymnastics in two schools, namely SDN Selaawi and SDN Sukamaju. These differences are identified in the aspects of the frequency of implementation, the location of the activity, and the time of the implementation of morning exercises. SDN Selaawi carries out morning gymnastics more

regularly, namely twice a week, while SDN Sukamaju only carries out it once a week. In addition, the implementation at SDN Selaawi tends to be more structured and consistent, while at SDN Sukamaju it is more flexible. These differences form a pattern that affects the intensity of student involvement in physical activity before learning begins.

Figure 2. Factors That Affect Children's Learning Readiness at School



The results of NVivo's analysis show that children's learning readiness is influenced by two main categories, namely internal factors and external factors. These two factors interact with each other and shape students' overall learning readiness. Internal factors come from within the child, such as physical condition, cognitive

ability, and emotional state. Meanwhile, external factors come from the child's environment, including the role of teachers, school activities such as morning gymnastics, and social support from friends and family.

These findings indicate that the effectiveness of morning exercise activities

is not merely determined by the existence of physical activity programs, but rather by the consistency, structure, and integration of the activities into the school culture. Schools that implement structured and routine exercise programs tend to create stronger behavioral adaptation among students, which subsequently contributes to improved concentration, emotional regulation, and classroom engagement.

This also suggests that multidimensional learning readiness is shaped through repeated physical and psychosocial stimulation. Therefore, morning exercise functions not only as a physical fitness activity but also as a pedagogical strategy that prepares students cognitively and emotionally before formal learning begins.

Discussion

The results of the study showed that there were differences in the implementation of morning gymnastics activities between SD Negeri Selaawi and SD Negeri Sukamaju, especially in the aspects of frequency, time, and management of activities. SD Negeri Selaawi carries out morning gymnastics twice a week with a more structured schedule, while SD Negeri Sukamaju only carries out once a week with a more flexible nature. This difference shows that the intensity and consistency of physical activity implementation are important factors in shaping students' habits. This is in line with the opinion of (Walker et al., 2021) who stated that physical activity that is carried out regularly and programmatically will have a more optimal impact on students' fitness and learning readiness.

Furthermore, the results of the study show that the frequency of morning gymnastics has an effect on the level of students' learning readiness. Students at SD Negeri Selaawi who participated in morning gymnastics more regularly showed better learning readiness than students at SD Negeri Sukamaju, although

both felt positive benefits. These findings are strengthened by research by (Z. Gao et al., 2018) which states that regular physical activity can increase children's concentration and learning readiness. In addition, according to (Laksmidewi et al., 2019), gymnastics activities can improve cognitive function through increased blood flow and oxygen to the brain, thereby helping students focus more on learning.

The results of the analysis also showed that morning gymnastics had a positive impact on students' learning readiness which included three main aspects, namely physical, mental, and emotional readiness. On the physical aspect, students feel fresher, fitter, and not easily tired after participating in morning exercises. This is in accordance with the opinion of (Liu et al., 2023) who stated that regular physical activity can improve body fitness and students' endurance in participating in learning activities. In the mental aspect, students show increased concentration, focus, and readiness to receive learning materials, which is in line with the research of (Mandolesi et al., 2018) that good physical condition affects students' cognitive abilities.

In addition, on the emotional aspect, students become more confident, more emotionally stable, and have a more positive mood after participating in morning gymnastics. This good emotional state plays an important role in supporting the learning process. This is in line with the opinion of (Tan et al., 2021) who stated that emotional stability and a positive mood can increase students' concentration and involvement in learning. (Nainggolan et al., 2025) added that gymnastics activities can increase kinesthetic intelligence while providing a relaxation effect that helps students be better prepared psychologically.

Furthermore, the results of the study show that students' learning readiness is influenced by internal and external factors. Internal factors include the physical condition, cognitive ability, and emotional state of the student. Students who have

good physical condition, high concentration, and stable emotions tend to be better prepared to participate in learning. This is in accordance with the opinion of (Handayani & Kaffa, 2025) who stated that learning readiness is the result of interrelated physical, cognitive, social, and emotional development.

On the other hand, external factors such as the school environment, the role of teachers, social interaction, and school activities such as morning gymnastics also play an important role in shaping students' learning readiness. Teachers who are able to create a fun learning atmosphere and a positive social environment can increase students' motivation to learn. This is supported by (X. Zhang & Qian, 2024) who state that a conducive learning environment and good social support will increase students' learning readiness. In addition, (Vi, 2026) also emphasized that student involvement in physical and social activities at school can improve overall learning ability.

Thus, it can be concluded that morning gymnastics activities have an important role in increasing students' learning readiness, both from physical, mental, and emotional aspects. The difference in the implementation of morning gymnastics in each school shows that the intensity and consistency of activities are key factors in optimizing the benefits obtained. In addition, students' learning readiness is also influenced by the interaction between internal and external factors, so a comprehensive approach is needed to improve the quality of learning in elementary schools.

The findings of this study indicate that the consistency and frequency of morning exercise activities play a significant role in shaping students' multidimensional learning readiness. Students who participated in structured and routine physical activities demonstrated better concentration, emotional stability, classroom engagement, and physical preparedness compared to students exposed

to less frequent exercise programs. This finding suggests that the benefits of physical activity are cumulative, meaning that repeated and structured participation contributes to stronger behavioral adaptation and learning preparedness over time.

The influence of exercise frequency can be explained by the idea that regular physical activity stimulates physiological and psychological activation continuously. Routine movement activities improve blood circulation, oxygen supply to the brain, and energy regulation, which positively affect students' focus and cognitive performance during classroom learning. In addition, repeated physical activity also helps students establish adaptive habits and learning discipline before academic activities begin.

From a theoretical perspective, these findings can be interpreted through the concept of self-regulation theory, which emphasizes students' ability to control attention, emotions, and behavior in achieving learning goals. Consistent morning exercise activities appear to strengthen students' self-regulation capacity by improving emotional control, reducing passive classroom behavior, and increasing readiness to participate actively in learning.

Furthermore, the findings also support the embodied cognition perspective, which argues that cognitive processes are closely connected to bodily movement and physical experience. In this context, physical activity through morning exercise does not merely function as fitness training, but also becomes a mechanism that prepares students cognitively and emotionally for learning. The interaction between bodily movement, emotional stimulation, and environmental support contributes to the formation of more optimal learning readiness.

Therefore, the findings suggest that consistency in physical activity not only improves physiological readiness but also enhances self-regulation and attentional

control, which are critical components of learning readiness. This demonstrates that structured school-based physical activity programs can serve as an important pedagogical strategy in supporting elementary students' academic engagement and overall classroom preparedness.

D. Conclusion

Based on the results of the study, it can be concluded that morning exercise activities have an important role in improving elementary students' learning readiness, particularly in physical, mental, and emotional aspects. Schools that implement morning exercise activities more consistently and systematically tend to demonstrate better student concentration, emotional stability, classroom engagement, and physical preparedness before learning activities begin. The findings also show that students' learning readiness is influenced by the interaction between internal factors, such as motivation and emotional condition, and external factors, including school environment, teacher support, and structured physical activity programs.

The findings of this study provide practical implications for schools and teachers in developing learning-supportive school environments through routine physical activity programs. Schools are encouraged to integrate structured morning exercise activities into regular school routines, while teachers are expected to create positive and engaging classroom environments that support students' emotional and cognitive readiness after physical activities. Consistent implementation of school-based physical activity programs may serve as an effective strategy to improve students' readiness and participation in classroom learning.

Scientifically, this study contributes to the development of research on physical activity and learning readiness by providing a comparative qualitative perspective on how differences in implementation intensity, consistency, and

activity structure influence multidimensional learning readiness outcomes. This study also strengthens the theoretical understanding of the relationship between physical activity, self-regulation, and embodied cognition in elementary education contexts. Future studies are recommended to involve broader participant groups and mixed-method approaches to obtain more comprehensive findings regarding the long-term impact of school-based physical activity programs on students' academic development.

E. Conflict of Interest

There were no problems in the study

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