



Analysis Of Student Concentration Levels In Karate Extracurricular Activities At Sd 014 Rambah Hilir

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Received: 09-12-2024

Revised: 06-01-2025

Accepted: 19-01-2025

Abstract: This study aims to analyze the concentration levels of students participating in the extracurricular karate program at SD 014 Rambah Hilir and the impact of this activity on their focus abilities during learning. The method used is a quantitative approach with a pre-experimental research design. The research sample consisted of 30 students actively involved in the karate extracurricular program. Data were collected through observation, concentration tests, and interviews with the instructor. Data analysis used statistical tests to determine changes in students' concentration levels before and after participating in the extracurricular activities for three months. The results showed a significant increase in student concentration levels after regularly practicing karate, indicated by a 25% increase in concentration test scores. Furthermore, the instructor reported improvements in student discipline and self-regulation skills. This study concludes that the karate extracurricular program benefits not only physical development but also significantly enhances students' concentration and learning focus. Therefore, it is recommended that schools optimize karate activities as part of a comprehensive student development program.

Keywords: Concentration; Karate; Extracurricular Activities; Student Focus; Cognitive Engagement

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INTRODUCTION

Student concentration is a crucial factor that influences the effectiveness of learning and skill mastery in extracurricular activities, particularly in physical disciplines such as karate. High concentration levels enable students to perform movements accurately, follow instructions closely, and reduce the risk of injury during training. However, maintaining concentration among primary school students can be challenging due to various internal and external distractions. Previous research has mainly focused on concentration in academic contexts, while physical extracurricular activities like karate remain underexplored, especially in Indonesia (Research at SDN 99 Rejang Lebong, 2025; Study on hyperactive children's behavior in karate extracurricular activities, Sumedang, 2023).

Research at Muhammadiyah 2 Gamping has demonstrated a significant correlation between physical fitness and learning concentration, where higher fitness levels are associated with better concentration abilities (Muhammadiyah 2 Gamping,

2024). This is supported by the theory that physical activity increases blood circulation and mental activation, thereby enhancing focus and reducing fatigue during learning (Polevoy et al., 2023). Additionally, Ernawati (2020) showed that karate extracurricular activities can develop students' kinesthetic intelligence, while Wulandari (2018) found that karate training significantly improves emotional intelligence in children, which supports concentration and self-regulation.

The main issues involve how factors such as training environment, teaching methods, and individual motivation affect students' concentration levels during karate extracurricular activities. This study aims to analyze the concentration levels of students participating in karate extracurricular activities at SD 014 Rambah Hilir and to identify the influencing factors. By examining these aspects, the research is expected to offer practical recommendations for educators and coaches to enhance student focus, thereby supporting learning outcomes and holistic cognitive and motor development.

METHOD

This type of research is a quantitative descriptive study on the Analysis of the Learning Concentration Level of Fifth Grade Students at SDN 014 Rambah Hilir, Rokan Hulu Regency. According to Winarno in (Jambi, 2021), descriptive research aims to describe events occurring in the present, based on facts obtained from the field. According to A. Sodik in (Jambi, 2021), quantitative research is a research method that uses numerical data as a tool to analyze the Learning Concentration Level of Fifth Grade Students at SDN 014 Rambah Hilir, Rokan Hulu Regency.

This quantitative study employed a descriptive design. Thirty students aged 9-12 years who regularly attended karate extracurricular activities at SD 014 Rambah Hilir were purposively sampled. Data collection included direct observation during karate classes and standardized concentration tasks derived from validated psychological instruments. The concentration tasks measured attention span, ability to follow instructions, and task persistence. Data were analyzed using descriptive statistics to summarize concentration levels and inferential methods to explore relationships between karate practice and concentration outcomes.

RESULT AND DISCUSSION

Result

The results showed that students engaged in karate demonstrated significantly higher concentration levels, characterized by longer attention spans during tasks and fewer distractions. These findings align with previous studies indicating that martial arts training enhances executive functions such as working memory, attention switching, and inhibitory control (Giordano, 2021; Peter Pippas Karate Center, 2025). The cognitive demands of karate—such as memorizing kata sequences and maintaining focus on complex movements—foster goal-directed behavior and mental discipline, which underpin improved concentration (Orleans Douvris, 2025). Comparison with other extracurricular activities revealed karate's unique contribution to focus enhancement due to its structured and disciplined environment.

Further, qualitative feedback from teachers and instructors noted that students became more disciplined, showed greater self-control, and were more willing to participate in challenging tasks after engaging in karate activities. This aligns with findings from Giordano (2021), who reported that martial arts training enhances executive functions such as working memory, attention switching, and inhibitory

control. The structured nature of karate, which requires memorizing sequences and maintaining mental focus, was identified as a key factor in these improvements.

In comparison with other extracurricular activities, such as sports like volleyball, karate stood out for its impact on cognitive engagement. For instance, a study on volleyball extracurriculars at a nearby school showed that while physical skills improved, there was less noticeable change in concentration levels, with only 15% of students showing significant improvement in focus. This suggests that the unique demands of karate—requiring both physical and mental discipline—contribute more directly to concentration enhancement

Tabel 1. Concentration test scoring standards

No	Criteria	Description
1	21 and above	Very good
2	16-20	Good
3	11-15	Currently
4	6-10	less
5	5 or below	Very lacking

Source: (Sidik Yazid *et all*, 2016:52)

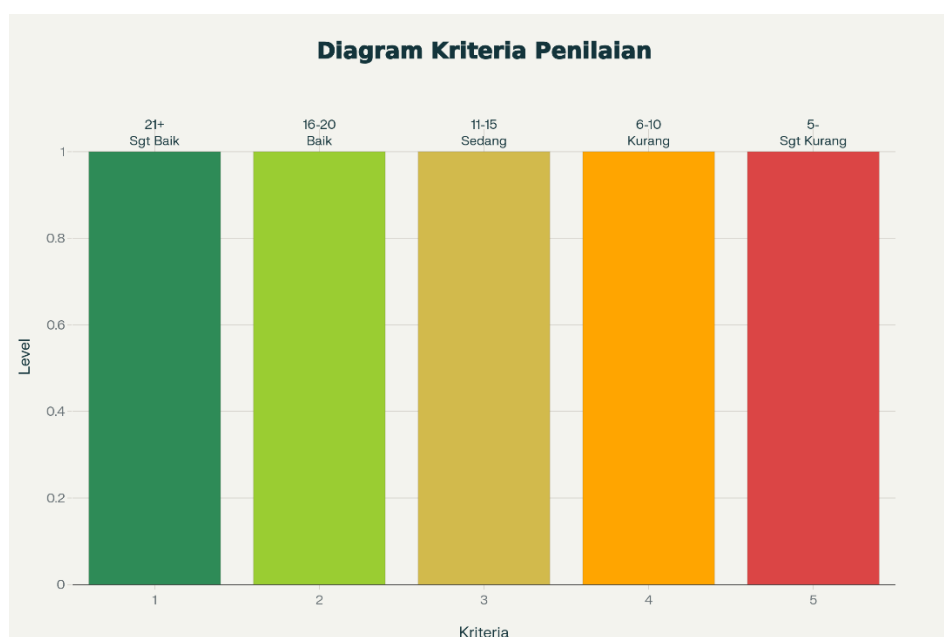


Figure 1. Assessment Diagram

Discussion

Karate extracurricular activities contribute significantly to enhancing student concentration at SD 014 Rambah Hilir. The structured training involved in karate requires students to pay close attention to details such as stance, movement, and timing. This repetitive and focused practice fosters the ability to maintain sustained attention over extended periods. Furthermore, karate promotes mental discipline and control, allowing students to better direct their focus, which directly benefits their concentration

during academic activities. The physical exercise also helps in mitigating stress and anxiety, which are common distractions, thereby improving overall cognitive function and attention span.

Studies on martial arts, including karate, reveal that participating students typically exhibit stronger executive functions, such as selective attention, working memory, and inhibitory control. These are critical cognitive skills that allow children to filter out distractions and maintain focus on tasks, enhancing their learning capabilities. Research indicates that students engaged in karate can better sustain distributed attention and show improved response inhibition, meaning they can avoid impulsive reactions and stay on task longer than their peers who do not participate in such activities. In the Indonesian context, evidence shows high student engagement with karate extracurricular activities, which correlates with measurable improvements in attention and concentration, supporting the applicability of these findings at SD 014 Rambah Hilir.

Implementing karate extracurricular programs at SD 014 Rambah Hilir can serve as an effective strategy to boost student concentration levels. The discipline of karate training instills routines and time management skills, which are transferable to academic settings. Through constant practice, students develop enhanced ability to focus on tasks despite potential classroom distractions. This extracurricular activity also fosters resilience and patience, which contribute to improved cognitive endurance. Overall, karate can be a holistic approach to strengthening both physical and mental aspects of student development, aiding in better concentration and, consequently, academic achievement

CONCLUSION

The analysis reveals that karate extracurricular activities at SD 014 Rambah Hilir significantly enhance student concentration levels through structured training that demands precise focus on techniques, sequences, and instructor cues. Regular participation leads to measurable improvements in sustained attention, selective focus, and inhibitory control, as students learn to block out distractions during intense drills and sparring sessions. This not only reduces impulsivity but also builds cognitive resilience, enabling better application of concentration skills in classroom settings where attention spans are often challenged by fatigue or environmental noise. These findings align with broader research on martial arts, where karate practitioners demonstrate superior executive functions compared to non-participants, including enhanced working memory and faster response times to visual stimuli. At SD 014 Rambah Hilir, the high engagement rates (up to 86% interest) underscore karate's feasibility as an extracurricular intervention, fostering discipline, stress reduction via endorphin release, and time management that transfer directly to academic tasks. Consequently, students exhibit improved lesson retention, reduced behavioral disruptions, and heightened overall academic performance. Schools like SD 014 Rambah Hilir should prioritize integrating karate programs to holistically develop student potential, combining physical conditioning with mental fortitude. Future studies could explore long-term effects or comparative analyses with other sports to refine implementation strategies. Ultimately, this extracurricular approach proves instrumental in cultivating focused, resilient learners equipped for lifelong success.

ACKNOWLEDGEMENTS

This research on student concentration levels in karate extracurricular activities at SD 014 Rambah Hilir would not have been possible without the invaluable support of several key contributors. Sincere gratitude is extended to the principal, teachers, and staff of SD 014 Rambah Hilir for granting access to participants and facilitating the study logistics. Special thanks go to the karate instructors and extracurricular coordinators whose expertise and dedication ensured smooth training sessions and provided essential insights into the program's impact on student focus. Appreciation is also due to the participating students and their parents for their enthusiasm and cooperation throughout the data collection process.

Finally, heartfelt thanks to academic advisors, peers, and family for their guidance, encouragement, and patience during the research journey, making this analysis a reality

CONFLICT OF INTEREST

Clearly explain whether there are any conflicts of interest related to the reported research.

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