

The Impact of Extracurricular Sports Programs on High School Students' Discipline and Academic Achievement

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INFO ARTIKEL	ABSTRAK
Accepted: July 02, 2025 Revised: August 24, 2025 Approved: September 10, 2025 Published: September 29, 2025	Extracurricular sports activities in high school have a strategic role not only in supporting physical health, but also in shaping the character of discipline and improving students' academic achievement, although a number of previous studies have confirmed the benefits of extracurricular activities, the results are still varied mainly in explaining the role of discipline as a mediator. This study aims to analyze the influence of extracurricular sports on the discipline of high school students and its implications on academic achievement with discipline as a mediator variable. The method used is Systematic Literature Review (SLR) by examining 23 articles published in 2020–2025 obtained from international databases and national journals. The results of the study show that extracurricular sports have a positive effect on student discipline which is reflected in regularity, self-regulation, motivation, happiness, and social solidarity. In addition, sports contribute to improving academic achievement both directly through concentration, physical health, time management, and learning motivation, and indirectly through discipline as a mediator. Discipline has proven to be an important variable that bridges sports involvement with student academic achievement.
Keywords: Extracurricular Sports, Discipline, Academic Achievement, Mediator	

INTRODUCTION

Modern education requires a balance between academic achievement and character development of students, one of the important means to achieve this goal is through extracurricular activities, especially sports, which are believed to be able to strengthen discipline while improving the academic achievement of high school students. Ahmed et al. (2024) emphasized that student involvement in extracurricular activities has a positive effect on academic achievement while increasing learning motivation. In line with that, Gardner et al. (2020) show that participation in extracurricular activities in high school has implications for long-term educational success, including the achievement of a bachelor's degree.

Extracurricular activities also have an inclusive function for students from diverse backgrounds, Connelly et al. (2022) found that extracurricular activities are able to improve students' academic achievement in the social welfare system, thus playing an important role in realizing educational justice, in line with that, Tan et al. (2021) stated that extracurricular activities can be seen as an investment in cultural capital that



encourages students' academic success, especially in the context of competitive education.

From a psychological point of view, student involvement in sports contributes greatly to mental health, Chen (2024) points out that participation in sports increases students' psychological resilience, which is important in the face of academic stress. This result is in line with the findings of Naorem and Meitei (2023) who identified a positive relationship between student happiness and involvement in extracurricular activities, proving that the benefits of exercise do not only touch the cognitive realm, but also affective.

In addition, the active involvement of students in designing and implementing activities also determines the academic impact, Leksuwanakun et al. (2022) explained that students' active participation in organizing extracurricular activities has a greater influence on academic achievement than just passive involvement. However, research by Erinjeri and Lobo (2023) shows that there is a variation in results, different types of activities have a non-uniform impact on students' academic achievement, so it is necessary to focus specifically on extracurricular sports activities in high school.

The relationship between extracurricular activities and academic achievement was strengthened by Jiang and Wei (2024), who found a positive correlation between student involvement in extracurricular activities and academic grades. Meanwhile, Chen (2024b) emphasizes the influence of extracurricular tutoring such as additional courses on student achievement, although the impact is different from that of more comprehensive sports. Prasetyo and Fatkhurrohman (2022) reported that students' interest in extracurricular sports activities is quite high, but its implementation has not been fully utilized as an instrument for fostering discipline and improving academic achievement.

Although various studies show significant benefits, there are still some research gaps, most of the studies highlight the relationship between extracurricular activities and academic achievement in general, without highlighting the role of extracurricular sports in shaping student discipline, the majority of research is conducted in an international context, while studies on high school students in Indonesia are still limited, the results of previous studies show variations in the influence of extracurricular activities, Therefore, further studies are needed to confirm how sport consistently contributes to discipline as well as academic achievement of students.

This research focuses on an analysis that integrates aspects of discipline and academic achievement in the framework of extracurricular sports in high schools in Indonesia, which have different educational characteristics and school culture from other countries, the purpose of this study is to analyze the impact of extracurricular sports programs on the formation of discipline of high school students as well as its implications on academic achievement, the results of the research are expected to make an empirical contribution to policy education, especially in optimizing extracurricular sports as a strategic means of improving academic quality and student character.

METHODOLOGY

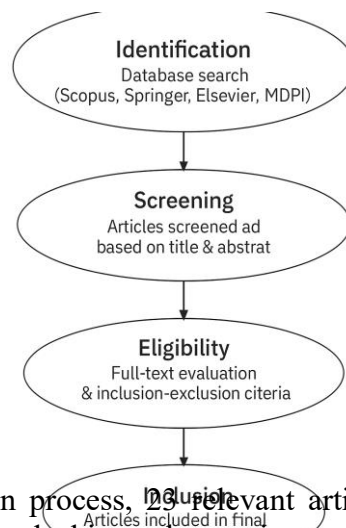
This study uses the Systematic Literature Review (SLR) approach because this method allows researchers to unite diverse empirical findings into a comprehensive synthesis, the use of SLR is considered relevant considering the results of previous research showing variations in the influence of extracurricular sports activities on discipline and academic achievement, this method has also been used in previous research by Feraco et al. (2022) who compiled an integrative model through a systematic study of

the relationship between extracurricular activities, soft skills, and academic achievement, Zarazaga-Peláez et al. (2024) who reviewed the literature on the impact of physical activity on academic achievement and sustainable development goals, and Balaguer et al. (2020) emphasized through a literature review that not all types of extracurricular activities have the same impact on academic achievement.

The research process follows a systematic SLR stage that includes identification, screening, eligibility assessment, and inclusion, articles were obtained from reputable international databases such as Scopus, Springer, Taylor & Francis, Elsevier, Wiley, and MDPI, as well as from SINTA-indexed national databases, search strategies were conducted using the keywords "extracurricular sports programs", "discipline", "academic achievement", and "high school students" with the help of operators Boolean (AND, OR) to expand or narrow search results.

The inclusion criteria applied in this study are: (1) articles published in the 2020–2025 range, (2) published in accredited national journals or reputable international journals, (3) discussing the relationship between extracurricular sports and students' disciplines, academic achievement, or psychosocial factors, and (4) available in full-text form, while articles that only discuss non-sports activities, are in the form of opinions/editorials, or do not present empirical data are excluded from the analysis. With this criterion, the analyzed literature remains focused on relevance to the research objectives.

Articles that meet the criteria are then analyzed using thematic synthesis techniques, each article is reviewed based on objectives, methodologies, main findings, and implications for the development of students' disciplines and academic achievements, from the analysis, the data is then grouped into major themes, namely: (1) the influence of extracurricular sports on student discipline, (2) contribution to academic achievement, (3) psychological and social impact, and (4) relevance in the context of Indonesian education.



Based on the selection process, 23 relevant articles were obtained for further analysis, using the SLR method, this study can integrate results that were previously fragmented so that a more complete and in-depth picture of the contribution of extracurricular sports to the discipline and academic achievement of high school students is produced, this approach also strengthens the empirical basis of research so that the findings obtained can be used as an academic and practical reference in the formulation of education policies.

RESULTS AND DISCUSSION

The Influence of Extracurricular Sports on Student Discipline

The results of this study show that extracurricular sports play an important role in shaping the discipline of high school students through regular involvement, compliance with rules, and regularity of training schedules, sports require students to attend on time, obey the coach's instructions, and show consistency in training and competition, the discipline trained in sports activities does not stop at the physical context alone, but also shapes the mindset of students in facing day-to-day academic responsibilities. This is in accordance with the findings of Cho and Lee (2021) which show that although participation in sports teams often causes academic pressure, the structure of sports activities actually strengthens student discipline through regular and consistent habituation.

In addition to the aspect of regularity, discipline also arises from social interaction that is built in extracurricular sports activities, through teamwork, students learn to put group interests above personal interests, maintain harmony, and respect differences, this dynamic reinforces the values of collective responsibility that indirectly shape individual discipline. Rahman and Rashidi (2022) emphasized that sports activities in secondary schools increase social solidarity, strengthen adherence to rules, and foster a sense of responsibility, so that students who are active in sports are more likely to internalize discipline than students who are not involved.

Psychological factors also play an important role in the formation of student discipline through sports activities, the happiness obtained from physical activity creates an intrinsic drive to obey the rules and be consistent in learning, when students feel emotional satisfaction from sports, such positive energy is carried into the academic world, for example in the consistency of being present in class and the regularity of doing assignments. Naorem and Meitei (2023) affirm that students who are happy because they are involved in extracurricular activities show a higher level of discipline in learning activities, as happiness increases intrinsic involvement and motivation.

Discipline is also strengthened through the formation of self-regulation skills, students who are used to sports practice schedules, learn to manage time, control emotions, and balance academic responsibilities with non-academic activities, these skills become the foundation of discipline that is useful in dealing with the demands of learning at school. Feraco et al. (2022) emphasize that extracurricular activities play a role in strengthening soft skills, self-regulation, and motivation, all of which are highly relevant to support academic discipline. In other words, sports train students not only physically, but also in aspects of self-control and time management.

Overall, extracurricular sports function as a strategic instrument in the formation of student discipline, through the path of order, social interaction, happiness, and self-regulation, student discipline can be strengthened comprehensively, discipline obtained from sports then contributes to more directed academic behavior, such as adherence to school schedules, study regularity, and the ability to manage academic responsibilities, so that sports participation extracurricular activities have a significant influence on the first dependent variable, namely the discipline of high school students.

The Influence of Extracurricular Sports on Academic Achievement

In addition to shaping discipline, extracurricular sports also have a direct impact on students' academic achievement, sports activities improve physical health, fitness, and endurance, all of which support learning readiness, students who are physically healthier tend to have greater energy to focus in class and complete academic tasks, this is in line with research Shan (2025) found that student involvement in school sports not only strengthens achievement academics, but also strengthen teamwork skills, which support long-term academic success.

In addition to physical factors, exercise also stimulates students' cognitive function, physical activity increases blood flow to the brain, strengthens memory, and increases concentration in learning, this has implications for students' ability to understand the subject matter more deeply. Ijaz (2023) shows that involvement in physical activity is positively related to the academic achievement of high school students, this finding confirms that exercise not only nourishes the body, but also improves cognitive abilities that support academic achievement.

Involvement in sports also forms time management habits that affect academic achievement, students who are active in sports are used to managing time between practice and study, so they are more structured in managing academic schedules, these skills contribute directly to academic achievement because students are able to balance various responsibilities. This research is in line with Muhammad (2023) finding that students who are active in sports tend to have better academic results, because the time discipline habits trained in sports activities are carried over to the world of learning.

In addition, motivation to learn is also strengthened through sports involvement, a sense of achievement in sports motivates students to achieve similar achievements in academics, victory in matches or success in practice creates a competitive spirit that encourages students to work hard in class. Nguri (2024) asserts that exercise increases students' intrinsic motivation, which in turn has a positive impact on their academic results. The impact of sports on academic achievement is not only short-term, but also has implications for long-term academic success, sports participation from an early age forms habits of discipline, regularity, and hard work that carry over into adolescence and adulthood, research by Pagani et al. (2024) shows that sports involvement from childhood increases the chances of academic success until late adolescence.

In addition, the integration of sports with modern technology also makes a great contribution to academic achievement, with a multimodal approach and technology-based analysis, sports can be associated with digital learning, so the benefits are wider. Li and Zhang (2022) found that physical activity in a technology-based environment was positively related to students' academic achievement. This means that sports combined with technology are able to increase students' focus, motivation, and consistency in achieving academic achievement.

Discipline as a Mediator

The results of the study also show that discipline functions as a mediator that bridges the influence of extracurricular sports on academic achievement, sports improve physical ability and motivation, but without discipline, these benefits are not fully internalized in academic behavior, the research of Balaguer et al. (2020) confirms that not all extracurricular activities provide the same academic results, and sports stand out for generating an influencing discipline learning outcomes. Consistency in participating in sports activities is a tangible manifestation of discipline that has an impact on academic achievement, students who are accustomed to following a disciplined exercise schedule

usually also show consistency in learning, research by O'Flaherty et al. (2022) found that the academic benefits of extracurricular activities are only significant if students are involved consistently. Thus, discipline is a mechanism that explains why sports involvement has a positive impact on academic achievement.

Discipline also works together with psychological and social factors in strengthening the relationship between sport and academic achievement, students who are disciplined are able to control emotions, manage study time, and maintain learning motivation. Zarazaga-Peláez et al. (2024) assert that the influence of sport on academic achievement is mediated by cognitive, social, and psychological factors, including discipline. Overall, this study shows that extracurricular sports have a direct effect on student discipline, contribute significantly to academic achievement, and indirectly impact through discipline as a mediator, discipline is a key variable that explains the relationship between sport and academic achievement. so that schools need to optimize extracurricular sports activities not only as a physical facility, but also as a strategy for character formation and increasing the academic achievement of high school students.

CONCLUSION

This study concludes that extracurricular sports have a significant influence on the discipline of high school students while contributing to academic achievement, directly or through discipline as a mediator, involvement in sports activities trains students to be consistent, manage time, and obey rules, which has implications for academic discipline behavior. In addition, the benefits of exercise also extend to cognitive, social, and psychological aspects, such as motivation, happiness, and solidarity, which strengthen students' academic achievement.

The implications of this study emphasize the importance of strengthening extracurricular sports programs in secondary schools as an integral part of educational quality improvement strategies. Teachers, coaches, and schools need to facilitate sports activities that are structured, consistent, and supported by a good time management system so that the benefits can be internalized by students, for policymakers, sports need to be seen as a means of character and academic development at the same time, so that resource allocation and school policies must support the sustainability of activities, further research is suggested to explore the influence of different types of sports, the intensity of involvement, as well as the factors of the school environment on the effectiveness of sports in shaping students' discipline and academic achievement.

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