



The Effect of a Physical Fitness Training Program on the Discipline of Fourth-Grade Students at SD Sejahtera in the 2025/2026 Academic Year

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Abstract.

Background: Student discipline remains an important concern in elementary education, particularly in relation to punctuality, compliance with school rules, and active participation in school activities.

Objectives: This study aimed to examine the effect of a physical fitness training program on the discipline of fourth-grade students at Sejahtera Elementary School.

Methods: This study used a quantitative experimental design involving 20 fourth-grade students, who were divided into experimental and control groups. The intervention was conducted for 16 days through structured physical fitness activities. Data were collected using observation, questionnaires, and interviews, and were analyzed using statistical tests.

Results: The findings showed that the physical fitness training program had a significant effect on improving student discipline, particularly in time management, behavior, learning discipline, and moral-spiritual aspects.

Conclusion: A structured physical fitness training program can be an effective strategy for strengthening disciplined character among elementary school students. Therefore, physical fitness activities may be integrated into character education programs in elementary schools.

Keywords: Physical Fitness, Training Program, Student Discipline, Elementary School Students, Character Education.

Received: April 30, 2026. Accepted: May 11, 2026

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How to Cite: M. B. Fauzi, & L. P. Sari. (2026). The effect of a physical fitness training program on the discipline of fourth-grade students at SD Sejahtera in the 2025/2026 academic year. *International Journal of Emerging Sport Science (IJESS)*, 2(2), 177–184.

INTRODUCTION

Discipline is a crucial aspect of the educational process, playing a role in shaping students' character and personality. At the elementary school level, discipline serves as the foundation for a conducive learning environment and helps students develop both academic and non-academic skills. Discipline encompasses various aspects, such as punctuality, responsibility, adherence to rules, and regularity in participating in teaching and learning activities. However, in reality, many schools face challenges in instilling discipline in their students (Cahya et al., 2024).

The decline in discipline among elementary school students is often linked to various factors, including the family environment, school environment, and social conditions in the community. Several studies have shown that regular physical activity can help address discipline issues in children. Physical fitness training has significant potential to improve student discipline through the formation of positive habits, improved physical health, and the development of social and emotional skills (Mawardi et al., 2024). Physical fitness training is an activity that not only benefits physical health but also affects students' psychological and social aspects (Siahaan et al., 2024). Regular physical activity can help reduce stress, improve concentration, and improve mood. Furthermore, physical fitness training can teach students to work together as a team, respect rules, and develop a sense of responsibility. A study by Suminah (2015) showed that circuit training can improve students' physical fitness and positively impact their discipline.

Based on initial observations in March 2025, it was found that the discipline level of fourth-grade students at Sejahtera Elementary School was relatively low. Observations of student attendance and participation in school activities revealed that approximately 45% of students frequently arrived late to class, did not participate consistently in learning activities, and demonstrated a lack of awareness of the importance of adhering to the school's physical activity schedule. Furthermore, a number of students appeared reluctant to actively participate in regularly scheduled physical fitness activities, either due to laziness or lack of motivation. This situation indicates problems in implementing disciplinary values, particularly in terms of time management, adherence to rules, and responsibility for both academic and non-academic activities. Class teachers and parents have approached students with advice and educational sanctions, but these have not shown significant results in changing student behavior patterns. Therefore, other, more applicable and enjoyable approaches are needed, one of which is a structured physical fitness training program oriented toward character development.

Sejahtera Elementary School, located on Jl. Bemo/Taksi Matra Block XXIII, KPUM Complex, is facing several challenges related to student discipline, particularly in fourth grade. Observations indicate that student discipline is problematic in terms of punctuality, attention to school rules, and responsibility for assignments. Teachers have attempted to implement discipline through positive reinforcement, educational sanctions, and the instilling of character values during the learning process. However, the results have not been optimal, indicating the need for a new, more effective approach. This situation underscores the need to implement a physical fitness training program as a way to improve and integrate student discipline into positive and enjoyable activities.

This study aims to examine the effect of a physical fitness training program on fourth-grade student discipline at Sejahtera Elementary School. Furthermore, this study will evaluate the program's effectiveness in improving aspects of discipline, such as attendance, compliance with rules, and regularity in participating in teaching and learning activities. Research by (Ilyasa & Efendi, 2024) shows that implementing a physical fitness training program can improve students' strength and endurance and positively impact their discipline.

Beyond physical aspects and habits, physical fitness training can also impact students' academic performance. Studies have shown that regular physical activity can improve cognitive function, including memory, attention, and problem-solving skills. This means that students who are more physically active tend to have better academic performance (A, 2022). In this context, the physical fitness training program at Sejahtera Elementary School can provide dual benefits for students, improving their discipline and academic performance.

The physical fitness training program also plays a crucial role in fostering healthy lifestyles from an early age. By accustoming students to regular physical activity, they can develop healthy habits that will continue into adulthood. This aligns with the goal of holistic education, which encompasses balanced physical, mental, and social development. Through this program, students are expected to develop healthy and disciplined lifestyles that will support their future development (Rumawatine & Ritiauw, 2023).

In this era of globalization, challenges in education are increasingly complex. Fierce competition demands that students excel not only academically but also possess adequate life skills. Discipline is a crucial life skill because it helps students manage time, collaborate with others, and take responsibility for their actions (Siregar et al., 2024). The physical fitness training program at Sejahtera Elementary School is expected to be a solution to develop these skills in students.

This research is expected to provide useful information for schools and related parties in optimizing physical fitness training programs as a method to improve student discipline. Furthermore, the results of this study are also expected to contribute to the development of more effective and holistic educational methods. Thus, physical fitness training programs serve not only as a means to maintain physical health but also as a tool to develop character and disciplined personalities. Research by (Munawar & Hariyanto, 2024) shows that students' physical fitness and physical activity levels are closely related to their discipline and academic achievement. Against this backdrop, this study focuses on how a physical fitness training program can improve student discipline at Sejahtera Elementary School. This program not only combines enjoyable physical activities but also teaches the values of discipline through routines, teamwork, and individual responsibility. Research by (Maulida, n.d.) reveals that a structured physical fitness program in schools can have a long-term impact on shaping students' disciplined behavior, while also encouraging them to be more consistent in obeying rules and carrying out tasks well.

METHOD

This study used a quantitative approach with an experimental design to test the effect of a physical fitness training program on student discipline. A quantitative approach was chosen because it allows the collection of numerical data that can be statistically analyzed to identify patterns and relationships between variables. The experimental design was used to identify causal relationships between the independent variable (the physical fitness training program) and the dependent variable (student discipline) (Jalinus et al., 2021). In this experimental design, students were divided into two groups: an experimental group that received the physical fitness training program intervention and a control group that did not receive the intervention. The use of a control group allowed researchers to compare the results between the two groups and determine the extent to which the physical fitness training program affected student discipline (Suardika et al., 2024).

Furthermore, this design helped control for other variables that might influence discipline, thus providing more valid and reliable results. This experimental design included a pre-test before the intervention to measure students' initial levels of discipline, and a post-test after the intervention to assess any changes. Thus, this study not only identifies the effect of a physical fitness training program on student discipline, but also examines the educational context of Sejahtera Elementary School, Jl. Bemo/Taksi Matra Block XXIII, KPUM Complex.

Research Design

This research was conducted at Sejahtera Elementary School, Jl. Bemo / Taxi Matra Block XXIII, KPUM Complex, because this school has the potential to improve student discipline through physical fitness training programs. This research was conducted from April to May 2025 at Sejahtera Elementary School, Jl. Bemo / Taxi Matra Block XXIII KPUM Complex, with the focus of the research on the effect of physical fitness training programs on the discipline of fourth grade students.

Participant

The population in this study included all fourth-grade students at Sejahtera Elementary School, Jl. Bemo/Taksi Matra Block XXIII, KPUM Complex. This population consisted of 20 students who actively participated in the physical fitness training program and students who did not participate in the program. Therefore, This study population included all fourth-grade students, who came from various backgrounds and had varying levels of physical fitness. This study aimed to examine the effect of the physical fitness training program on student discipline in fourth-grade students at Sejahtera Elementary School.

a. Students Active in the Physical Fitness Training Program:

Students who regularly participated in the physical fitness training program, consisting of 14 students, served as the primary subjects in the experimental group.

b. Students Not Participating in the Program:

Students who did not participate in the physical fitness training program, consisting of 6 students, served as the control group in this study.

With a total sample size of 20 students, including 8 boys and 12 girls, this study aimed to objectively assess how a physical fitness training program affects student discipline at Sejahtera Elementary School. A sufficiently large sample size is expected to yield more accurate and relevant results, helping to identify patterns and relationships between the variables studied.

Data Analysis

a. Observation

In this study, the researcher used direct observation, data obtained from direct observation of the implementation of the physical fitness training program at school and student disciplinary behavior during the activity.

b. Questionnaire

In this study, the researcher used a closed-ended questionnaire because the author had prepared the answers, and respondents only responded by ticking or using other symbols. The researcher chose a closed-ended questionnaire because they believed it was effective and easy for respondents to understand.

c. Interviews

In this study, the researcher used interviews, data obtained through interviews with teachers, coaches, and students to gain more in-depth information regarding the impact of the physical fitness training program on student discipline.

a. Normality Test

The normality test is used to determine whether the data we have is normally distributed. The decision for this normality test is: if $\text{sig} > 0.05$, then the data is normally distributed; if $\text{sig} < 0.05$, then it is not normally distributed.

b. Homogeneity Test

The homogeneity test examines the similarity of the variances of two or more distributions. This homogeneity test is conducted to determine whether the sample data are obtained from a population with homogeneous variance. Homogeneity of variance is considered if the p-value, sig, is > 0.05 . The p-value, sig, is the calculated value of the homogeneity test results.

RESULTS AND DISCUSSION

Results

This study aims to determine the effect of a physical fitness training program on the discipline of fourth-grade students at Sejahtera Elementary School. The focus of the study was to examine the extent to which student involvement in structured physical activity can contribute to the development of disciplined behavior, encompassing various important dimensions such as punctuality, adherence to school rules, personal responsibility for assignments, and consistency in carrying out learning routines and physical activities. Discipline is one of the main indicators of successful character education in elementary schools, and physical fitness training is believed to be an effective medium for instilling these values in a practical and enjoyable way. Therefore, this study is not only academically significant but also has practical relevance in the context of character development in students from an early age.

In the data collection process, the researchers used three main complementary techniques: observation, questionnaires, and interviews. These three techniques were chosen to ensure that the data obtained was comprehensive, objective, and fully reflected the reality on the ground. Observations were conducted directly and systematically throughout the program, with the researchers recording various aspects of student behavior observed during the training.

These included compliance with the trainer's instructions, punctuality in attendance, active involvement in group activities, and students' attitudes toward physical challenges. These observations also included changes in behavior from week to week, allowing researchers to dynamically observe patterns of student discipline development.

Meanwhile, a questionnaire was developed as a quantitative instrument to measure students' perceptions and responses to the implementation of the physical fitness training program. This questionnaire consisted of a number of statements grouped according to discipline indicators: time discipline, study discipline, behavioral discipline, and moral or spiritual discipline. To ensure the quality of the instrument, the questionnaire underwent a validation process by subject matter experts, media experts, and linguists. Validation by subject matter experts aimed to assess the relevance and accuracy of the questionnaire content to the learning objectives and characteristics of elementary school students. Validation by media experts ensured that the questionnaire's appearance, layout, and presentation structure were easy to understand and engaging for students, and appropriate for the delivery medium used in the program. Validation by linguists examined the use of diction, sentence structure, and language appropriateness to the cognitive development level of fourth-grade students, ensuring the instrument could be clearly understood without allowing for multiple interpretations. Through this validation process, a suitable and credible instrument was obtained to quantitatively measure changes in student disciplinary behavior.

In addition to observations and questionnaires, interviews were also used as a qualitative data collection technique aimed at eliciting in-depth information from Key informants included classroom teachers, physical education teachers, and several students who consistently participated in the program. These interviews were semi-structured, using flexible question guides to capture the nuances and reflections of the participants' experiences. From the interviews, researchers obtained information about the program's emotional impact on students' learning motivation, changes in daily attitudes, and technical challenges encountered during the

physical training. This information complemented the quantitative data and helped provide a more meaningful interpretation of the research findings.

This study involved two main groups: an experimental group and a control group, distinguished by their involvement in the physical fitness training program. The experimental group consisted of students who actively participated in a series of exercises over 16 sessions, with a variety of activities designed to address aspects of endurance, agility, strength, coordination, and teamwork. Activities such as fitness gymnastics, relay races, traditional games, and rhythmic gymnastics were chosen because they were educational and fun, while also requiring discipline. Each training session began with a warm-up and core exercises, and concluded with a cool-down and behavioral reflection. The program design adhered to the Bompa periodization principle and was adapted to the physical and psychological developmental characteristics of fourth-grade students.

Meanwhile, the control group consisted of students who did not participate in the exercise program and simply went about their regular school activities.

This group served as a comparison to measure the extent to which behavioral changes in the experimental group were truly caused by the physical fitness program intervention, rather than by other external factors. This approach ensured the internal validity of the study, and the results obtained were more accurate in explaining the relationship between the independent variable (exercise program) and the dependent variable (student discipline).

Furthermore, this research not only contributes to the development of physical education methods but also supports the national character education agenda, which emphasizes the development of a healthy, resilient, and virtuous generation. The research findings are expected to serve as a basis for schools, physical education teachers, and educational policymakers to integrate physical fitness training programs as part of the character curriculum. By making physical activity a means of instilling values, physical education is no longer viewed as a supplement, but rather as a strategic instrument in the holistic development of students' character.

Before implementing a physical fitness training program for students in the experimental group, it is important to ensure that the materials used have undergone a validation process to ensure they are appropriate in terms of substance, media, and language. This validation is conducted by experts in their respective fields, with the aim of assessing the suitability of the program content to the curriculum, student development levels, and pedagogical principles. Therefore, before discussing the pre-test results, program implementation, and results

At the end of the measurement, the results of the validation of the physical fitness training program were first presented, which became the basis for implementing the intervention in this study.

Tabel 1 Uji Hipotesis (*Paired Sample t-Test*) Terhadap Skor Kedisiplinan Siswa

| No | Kelompok | Rata-rata Pre-Test | Rata-rata Post-Test | Selisih Skor | Interpretasi Praktis |
|----|------------|-----------------------|------------------------|-----------------|--|
| 1 | Eksperimen | 31,25 | 41,73 | +10,48 | Terjadi peningkatan signifikan |
| 2 | Kontrol | 30,67 | 32,18 | +1,51 | Peningkatan kecil dan tidak signifikan |

Tabel 2. Formulasi Hipotesis dan Hasil Evaluasi

| Aspek | Pernyataan |
|--------------------------------|---|
| Hipotesis Nol (H_0) | Tidak terdapat perbedaan signifikan skor kedisiplinan sebelum dan sesudah perlakuan |
| Hipotesis Alternatif (H_1) | Terdapat perbedaan signifikan skor kedisiplinan sebelum dan sesudah perlakuan |
| Hasil Evaluasi | H_0 ditolak, H_1 diterima |

| | |
|--------------------|--|
| Kesimpulan Praktis | Program latihan kebugaran jasmani berpengaruh signifikan terhadap peningkatan kedisiplinan siswa |
|--------------------|--|

Discussion

This study aimed to determine the impact of a physical fitness training program on the discipline levels of fourth-grade students at Sejahtera Elementary School. To address this objective, the researchers used a quantitative method with a quasi-experimental approach. This study involved two groups: an experimental group that received a physical fitness training program, and a control group that underwent regular learning activities without any special intervention. To ensure the intervention program had targeted academic and pedagogical strengths, the program's instruments and content were first validated by three experts: a material expert, a media expert, and a linguist.

1. The material expert assessed that the training content aligned with the learning objectives of Physical Education (PJOK) for fourth-grade elementary school students and encompassed aspects of physical development and character values.
2. The media expert stated that the instructions, program design, and exercise visualizations were engaging and interactive, encouraging active student participation.
3. The linguist emphasized that the sentences used in the program instructions were appropriate for the cognitive development level of elementary school children, namely communicative, simple, and easy to understand.

Based on the results of the questionnaire distributed before the treatment, data showed that the students' discipline level was in the moderate category. The experimental group had an average score of 31.25, while the control group had an average score of 30.67. Both groups demonstrated equivalence in initial conditions, which serves as the basis for the validity of this study. Therefore, if there is a change in scores after the treatment, the change can be believed to be a result of the intervention program. Analysis of each questionnaire item revealed that students have an initial awareness of the importance of discipline. However, the application of values such as perseverance, active involvement, and responsibility remains conceptual and has not yet been fully embedded in behavior. Motivational aspects and the variety of training activities also do not fully encourage students' emotional engagement.

The training program consisted of 16 sessions over two months. Each session consisted of three main parts: warm-up, core exercises, and cool-down/reflection. The types of exercises varied, from light gymnastics and traditional games to explosive strength training and teamwork-based physical education games. The program design adhered to the principles of periodized training and an active learning approach.

The approach used was fun physical activity, creating an enjoyable learning experience. This aligns with Siedentop's (2004) opinion that a fun approach to physical education encourages students to internalize social values such as cooperation and discipline. The physical education teachers in this study served as facilitators and role models, reinforcing character messages through concrete examples.

Observations showed that students participated enthusiastically in the activities and gradually improved in their discipline. They began to arrive on time, bring their own equipment, and follow instructions more obediently. and complete group assignments responsibly. According to Thorndike (in Syah, 2003), repeating behavior in a positive context will strengthen habits, and this is reflected in changes in students' attitudes during the program. Post-test results showed that the experimental group experienced a significant increase, from 31.25 to 41.73, or an increase of 10.48 points. Meanwhile, the control group only increased from 30.67 to 32.18, or an increase of 1.51 points. The increase in the control group is considered normal, as it is a result of routine learning that still incorporates discipline values, although not as intensively as the experimental group.

The significant increase in the experimental group is the result of direct experience, active involvement, and continuous habituation throughout the program. This aligns with Hamalik's (2003) opinion, which states that attitudes and values will only be formed if the educational process is directly experienced by students, rather than simply conveyed through lectures or theory.

CONCLUSION

Based on the results of research conducted on fourth-grade students at Sejahtera Elementary School, it can be concluded that the physical fitness training program has a positive and significant impact on improving student discipline. This 16-day program, designed with a gradual and varied approach to physical training, ranging from light gymnastics and traditional games to fitness tests, successfully establishes a routine that supports the development of discipline in students.

Observations, questionnaires, and interviews indicate that students who actively participate in the program experience improvements in aspects of discipline, such as:

1. punctuality in school attendance and attending lessons,
2. compliance with teacher instructions,
3. responsibility in completing assignments,
4. active involvement in both academic and non-academic activities.

The training program also positively impacts the development of students' character and social skills, such as teamwork, sportsmanship, and a sense of responsibility for themselves and their environment. Therefore, physical fitness training not only supports physical health but also plays a crucial role in shaping students' overall character and disciplined behavior.

These findings reinforce previous research that confirms that structured physical activity can be an effective tool for fostering early disciplinary values in elementary schools. Therefore, it is recommended that physical fitness training programs continue to be developed and integrated into the educational curriculum as part of a strategy for developing student character.

ACKNOWLEDGMENT

The author would like to thank the School, Teachers and Students of SD Sejahtera Medan, the researchers and authors who have participated and provided support for this research activity.

AUTHOR CONTRIBUTION STATEMENT

This research was conceptualized and designed by Anita Sofiani Gajah, who developed the research objectives and methodology, managed data collection, coordinated with participants, and supervised fieldwork at STOK Bina Guna Medan. Liliana Puspa Sari performed data analysis, interpreted the findings, and contributed significantly to the preparation of the manuscript. All authors participated in the revision of the manuscript, approved the final version for submission, and take full responsibility for the integrity and accuracy of the work.

CONFLICT OF INTEREST AND FUNDING

The authors declare no conflict of interest related to the conduct, authorship, or publication of this study.

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