



How Does Fitness Level Affect Physical Education, Sports, And Health Student Learning Achievement

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ABSTRAK

Pendidikan formal di sekolah sangat penting untuk mengembangkan kualitas sumber daya manusia. Namun, kurangnya kebugaran jasmani siswa seringkali menghambat upaya peningkatan mutu pendidikan. Kurangnya kebugaran jasmani berdampak negatif terhadap prestasi belajar siswa pada mata pelajaran Pendidikan Jasmani, Olah Raga, dan Kesehatan (Penjasorkes). Penelitian ini bertujuan untuk menganalisis tingkat kesegaran jasmani, prestasi belajar kebugaran jasmani, dan pengaruh tingkat kesegaran jasmani terhadap prestasi belajar siswa SMP. Jenis penelitian ini adalah penelitian deskriptif kuantitatif. Populasi yang digunakan adalah seluruh siswa laki-laki yang berjumlah 348 siswa dan berusia antara 13 sampai 15 tahun. Teknik pengambilan sampel menggunakan teknik purposive sampling yaitu pengambilan sampel dengan cara memilih sampel menurut tujuan tertentu yang berjumlah 40 siswa. Metode dan instrumen pengumpulan data pada penelitian ini menggunakan tes TKJI usia 13-15 tahun yang terdiri dari (1) lari cepat 50 meter, (2) angkat badan gantung selama 60 detik, (3) berbaring selama 60 detik, (4) lompat tegak, (5) lari 1000 M, dan data prestasi PE melalui rapor akhir semester. Setelah data terkumpul, dianalisis dengan menggunakan metode analisis korelasi Pearson. Hasil penelitian menunjukkan tingkat kebugaran jasmani siswa berada pada kategori sedang, dan hasil belajar siswa berada pada kategori tinggi. Oleh karena itu, dapat disimpulkan bahwa tingkat kebugaran jasmani berpengaruh signifikan terhadap prestasi belajar siswa. Penelitian ini diharapkan dapat memberikan kontribusi positif terhadap peningkatan prestasi belajar dan kesejahteraan siswa pada semua jenjang pendidikan.

ABSTRACT

Formal education in schools is very important for developing the quality of human resources. Still, students' lack of physical fitness often hampers efforts to improve the quality of education. Lack of physical fitness hurts student learning achievement in Physical Education, Sports, and Health (Penjasorkes) subjects. This study aims to analyze the level of physical freshness, physical fitness learning achievement, and the influence of physical freshness level on the learning achievement of junior high school students. This type of research is descriptive quantitative research. The population used is all male students with totaling 348 students and aged between 13 and 15 years. The sampling technique uses purposive sampling techniques, namely sampling, by selecting samples according to certain objectives totaling 40 students. Data collection methods and instruments in this study used TKJI tests aged 13-15 years consisting of (1) 50 meter sprint, (2) hanging body lift for 60 seconds, (3) lying down for 60 seconds, (4) jumping upright, (5) running 1000 M, and PE achievement data through the end of semester report card. After the data was collected, it was analyzed using the Pearson correlation analysis method. The results showed that students' physical fitness level was in the moderate category, and the students' learning outcomes were in the high category. Therefore, it can be concluded that the level of physical fitness significantly influences student learning achievement. This study is expected to positively contribute to improving learning achievement and student well-being at all levels of education.

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1. INTRODUCTION

Education is the main vehicle for the development of the quality of human resources (Kurniawan & Febbia, 2021; Lamuri & Laki, 2022). With education, humans are increasingly aware of the importance of the thought process to determine the quality of their future. Through education, a person can determine his future starting from school. Many also believe that education and science are necessary to survive in the era of global competition that is happening in every nation. Education is not only obtained from school but from various sources including the social environment, family environment, and news media both print and electronic. However, formal education must still be obtained in a school environment which is an educational unit whose education and teaching system has been designed regularly to transmit knowledge to its students.

Therefore, efforts to improve the quality of education need serious attention, especially in schools which are the foundation for all levels of education, because the basics of science, skills, and behavior are given, so it needs to get careful attention and coaching by always improving its quality through a pattern of fostering excellence insights (Cahyaningrum & Nugraheni, 2024; Syahbuddin, 2020). Exercise has many benefits. One of them is improving and maintaining physical freshness (Dewi & Rifki, 2020; Hanif et al., 2023). By participating in sports activities, it is hoped that someone can enjoy the benefits of exercise for their health. In addition, what is more important is that through sports a person is expected to be able to work productively and efficiently, not susceptible to disease, learn to be more enthusiastic, and perform optimally because it is supported by his fitness or physical health. Physical freshness is a person's ability to be able to carry out daily activities easily without feeling excessively tired and still have energy reserves to do other activities.

The development of physical fitness in education is given from an early age in elementary school through physical education (Damanhuri, 2023; Dr. Achmad Sofyan Hanif, 2023). According to the competency standards of school physical education subjects. Physical education is an educational process that utilizes systemically planned physical activities aimed at improving the individual. In the intensification of education delivery as a process. Physical education is a medium to encourage the development of motor skills, physical abilities, knowledge, reasoning, value appreciation (mental-emotional-spiritual-social attitudes), and habituation of a healthy lifestyle that leads to stimulating balanced growth and development. With physical education, students will get various expressions that are closely related to pleasant personal impressions as well as various expressions that are creative, innovative, skilled, have physical fitness, healthy living habits and have knowledge and understanding of human movements.

Through good physical fitness, students will certainly be able to receive and absorb the lessons given by the teacher so that the goal of creating the next generation of the nation who excel in all aspects will be realized (Dewi & Rifki, 2020; Hanif et al., 2023; Syahbuddin, 2020). So that students can be actively involved in the era of global competition with strong capital so that they can survive and become the best among other students. Education plays a central role in developing the quality of human resources, with schools as the main foundation for transmitting knowledge and skills. However, there is a significant gap in attention to non-academic factors that also significantly influence students' learning achievement. One such factor often overlooked is students' physical fitness levels, which often receive little attention despite substantially impacting learning ability and academic performance.

Schools often focus on selecting students based on academic potential tests, ensuring that admitted students excel in various subjects. This approach overlooks the importance of good physical fitness as a key support in learning. Physical fitness is not only important for physical health but also plays a role in improving students' concentration ability, stamina and motivation to learn. Excellent physical condition allows students to participate in teaching and learning activities better and more productively to achieve optimal academic results. In physical education, although the curriculum has recognized the importance of regular physical activity, the implementation and emphasis on physical fitness is often suboptimal. Schools, as formal educational institutions, should not only focus on cognitive aspects but also ensure that students get the opportunity to develop their physical fitness. Structured and directed sports activities in schools are essential to improve the degree of physical fitness of students, which in turn will have a positive impact on their academic performance.

Research at SMP Negeri 4 Kandis revealed real problems related to the lack of physical fitness and student learning achievement in physical education, sports and health subjects. This shows a gap between the curriculum expectations and the field's reality. Students' low physical fitness can decrease physical endurance and concentration, leading to a decrease in academic achievement. Therefore, serious efforts are needed to bridge this gap by increasing attention to the importance of physical fitness in education. Overall, the gap between the importance of physical fitness and the dominant focus of education on academics needs to be addressed. Better integration of physical and academic activities in schools is

expected to create a more holistic learning environment that supports students' overall development. This research is crucial to provide empirical data supporting more comprehensive education policies. Thus, the goal of creating the next generation of nations that excel in all academic and physical aspects can be achieved more effectively.

There are several similar studies that are relevant to the research conducted. The first researcher revealed that there is a relationship between physical fitness and academic achievement of junior high school students. In this study, teachers, coaches, and students should maximize physical activities that support physical fitness to improve student learning outcomes. In addition, extracurricular programs that are more massive and involve many students need to be held so that physical activities can be carried out optimally, supporting the achievement of better physical fitness. Other researchers also explained that the level of physical fitness and mental health has a significant correlation coefficient with physical education learning achievement for elementary school students. This result can explain the importance of the two variables to learning achievement, especially in PE lessons (Abdullah et al., 2020; Destriana et al., 2022; Indrayogi, 2020; Putra et al., 2023; Rhamadhanie, 2020; Sobarna et al., 2020).

The novelty of this study lies in its unique and comprehensive focus on the relationship between physical fitness and student learning achievement, particularly in physical education, sports and health subjects. Many schools, including SMP Negeri 4 Kandis, face problems related to students' low levels of physical fitness and unsatisfactory learning achievement in this area. This study aims to fill this gap by providing empirical evidence on the importance of physical fitness in improving students' academic achievement. Furthermore, this study will explore other factors that might influence the relationship between physical fitness and learning achievement, such as student motivation, family support, and teaching quality. Thus, this study will identify the importance of physical fitness and provide practical recommendations for schools in improving their physical education programs. This is expected to create a more balanced and holistic learning environment where students can develop academically and physically.

Therefore, this research is highly relevant and needed to address the existing gaps and provide a better understanding of the role of physical fitness in education. With strong evidence from this study, it is hoped that education policy can better consider the importance of regular and purposeful physical activity as an integral part of the school curriculum to support students' overall learning achievement. Therefore, this study aims to analyze the level of physical freshness, physical fitness learning achievement, and the influence of physical freshness level on the learning achievement of junior high school students. This type of research is descriptive qualitative research. In addition, this study is expected to positively contribute to improving learning achievement and student well-being at all levels of education.

2. METHOD

This type of research is quantitative descriptive research. This type of research was chosen because it aims to describe the characteristics of a population or phenomenon under study. In this context, the research will measure the level of physical fitness and student learning achievement and analyze the relationship between the two. Research design as a design or description that is used as a reference in conducting a study. This research is a type of descriptive research (comparison) that aims to determine whether there is an analysis of the level of physical freshness on the learning achievement of students of SMP Negeri 4 Kandis. Population is several residents or individuals who have at least one characteristic in common. Meanwhile, other researchers also mentioned that, the population is the entire object of research (Suriani et al., 2023; Yuliawan & Yuliana, 2023). From the above opinion, it can be concluded that the population of all individuals who will be the subject of research and all individuals must at least have the same characteristics. The population of this study was 525 students of SMP Negeri 4 Kandis. The sample is part or representative of the population studied. Another opinion explains that the sample is part of the population investigated. The guidelines in taking this number of samples refer to another researcher's opinion states that, namely the method of determining certain samples that are assessed according to the objectives or research problems in a population (Maulana et al., 2021; Wawan & Fernando, 2023). Because the population in this study is relatively large, the researchers limit it by selecting samples according to certain objectives, so that the number of samples is 40 students of SMP Negeri 4 Kandis.

The method used in collecting data is to record the results of physical freshness tests that apply to students of SMP Negeri 4 Kandis. The measurement of the physical freshness test is used by the Indonesian physical freshness test or TKJI. This test is a series of tests, therefore all test items must be carried out in a unit of time before carrying out the measurement test all respondents have explained the purpose, purpose, and usefulness of the physical fitness test to be carried out, as well as how to do each test item.

To obtain learning achievement data obtained from the average value of student teaching results. In measuring physical freshness, 5 tests were carried out, namely running 60 meters, hanging body lift for 60 seconds, lying sitting for 60 seconds, jumping upright, and running 1200 meters. The instrument grids used in this study are presented in [Table 1](#). After the data was collected, it was analyzed using the Pearson correlation analysis method.

Table 1. Instrument Grids

Items Tested	Specifications of Things Needed
Physical Freshness Test	Running track or field is flat and not slippery, stopwatch, whistle, scale manila board/carton for upright jumping, tunggal bar, lime powder, eraser, berndera start, est forms and stationery
Implementation Techniques	60 meter sprint, body lift hanging test, knee sitting lying test 60 second, jump upright, men's 1200 meter test

3. RESULT AND DISCUSSION

Result

The results of the data analysis have been stated previously, and the following is a discussion of the research, which is also the answer to the problem in the study. Exercising and regular physical activity is important for health. In addition to helping prevent and control disease, exercise is also beneficial for lowering, and maintaining a healthy weight ie, 50 m sprint, hang body lift for 60 seconds, lying down sitting for 60 seconds, jump upright, and 1.000 meter run.

Based on the presentation of the results of the analysis above, the physical freshness of SMP Negeri 4 Kandis students, as a whole, only meets the criteria, namely medium and less. Based on the results of data analysis that has been carried out, the criteria dominated by students of SMP Negeri 4 Kandis have medium criteria. The cause of physical freshness experienced by these students cannot be separated from factors that affect physical freshness including nutritious food, adequate rest and regular exercise, healthy living habits, and environmental factors.

It has been explained earlier that the allocation of sports time is very minimal during the teaching and learning process at school which allows students' physical freshness to decrease, but that is not one of the factors but several factors of physical freshness affect each other with other factors. If students exercise regularly then unhealthy food and insufficient rest then students who have physical freshness may not necessarily be improved and vice versa adequate rest and nutritious food but do not exercise regularly then physical freshness can also decrease.

One other factor that causes the category of physical freshness of students is because these students have a less level of aerobic sports activities, especially those who are not active in extracurricular activities, not the same as students who are trained and active in extracurricular activities. The following factors are related to each variable of physical freshness for SMP Negeri 4 Kandis students.

In the variable 50-meter sprint, students are required to contribute all their running speed. Many things are very related to the 50-meter sprint for students, such as athletics that require speed, especially in estavet running and long jump. As for sports that also affect students, especially in sports games, namely football and baseball games, in this game students are required to have speed so that the game can be maximized.

In hanging variables, student body lifts are required to use all strength and endurance, especially in the shoulder and arm muscles for 60 seconds. Several movement activities are very influential on hanging body lift in students. In athletic sports such as javelin throwing and bullet throwing, where students who have strong arm and shoulder muscles will be able to throw or reject javelins and bullets very well, thus from the sports taught at the junior high level, students who have good shoulder and arm strength will certainly greatly contribute to sports that require strength in the arms and shoulders

In the variable lying down, students are required to contribute all the strength and endurance of the abdominal muscles for 60 seconds. There are several sports related to abdominal muscle strength taught to junior high school students such as in long jump athletics, in this sport abdominal muscle strength is needed in a position to want to jump until it lands again, there are also from the game sport, namely football, the abdominal muscles owned by students will be very influential when kicking the ball, due to the contribution of abdominal muscles is very big when looking down on the game of soccer that is taught.

In the upright jumping variable, students are directed to jump vertically to find out how much explosive power the student's limbs are. The speed and explosive power of the limbs greatly contribute to various sports taught at the junior high level, one of which is high jump athletics and basketball games. In

the high jump, it takes the explosive power of the legs to jump to pass the jump limit bar, and in basketball games, the explosive power of the legs contributes as well, especially when shooting into the basketball hoop by jumping or using the explosive power of the limbs

In the variable 1000 M run, students are directed to run as stable as possible to the finish line to find out one of them is leg muscle endurance, and cardiorespiratory endurance. Various sports are learned by junior high school students that require leg muscle endurance and cardio respiration, one of which is in basketball, volleyball, to football. Of the three sports, each requires leg muscle endurance and cardio respiration due to frequent irregular running movements, depending on the game situation.

Based on the results of the study, the level of physical freshness of SMP Negeri 4 Kandis students was obtained with a percentage of 67.5%. In the formulation of the TKJI problem, several factors support or affect TKJI students, including, students of SMP Negeri 4 Kandis like to do sports activities after school such as playing ball on the beach, swimming, and also supported by adequate nutritional intake. Learning outcomes of SMP Negeri 4 Kandis students in the high category with the largest percentage at 70%. The main factor that plays a role so that the high learning outcomes of PE students is the high interest of students to follow the teaching and learning process of PE, especially in field learning and also supported by TKJI students who tend to be moderate.

There is a significant influence between the Level of Physical Freshness on the learning achievement of students of SMP Negeri 4 Kandis, namely the value of $R = 0.898$ and the value of probalitas $0.000 < 0.05$. factors that cause the influence of TKJI on the learning outcomes of students of SMP Negeri 4 Kandis, namely, TKJI students of SMP Negeri 4 Kandis Fairly moderate and also supported by students' penchant for sports activities which causes when the PE teacher takes PE scores, students practice seriously so that the grades obtained become good.

Discussion

The main result of this study shows that students' physical fitness level has a significant influence on their learning achievement in Physical Education, Sports, and Health (Penjasorkes). This finding confirms the importance of physical fitness as a supporting factor in achieving optimal learning outcomes. Students with good physical fitness levels tend to show higher learning achievement, which means that physical health affects not only students' ability to go about their daily activities but also their cognitive and academic abilities. This study makes an essential contribution to the field of physical education and health, particularly in the context of formal education in schools. The findings strengthen the argument that the integration of effective physical fitness programs in the school curriculum can help improve students' academic performance. This study also provides empirical evidence that supports a more holistic education policy, which not only focuses on cognitive aspects but also pays attention to students' physical health as an essential component in the learning process.

This study has several strengths that make an essential contribution to the field of education and student health. Firstly, this study used a quantitative descriptive approach that allowed for an in-depth understanding of the relationship between physical fitness and student learning achievement (Hasanuddin & Hasanuddin, 2024; J. I. Pendidikan et al., 2023; Zalal et al., 2023). This approach provides a comprehensive picture of how physical fitness levels can affect learning outcomes, which is often overlooked in traditional quantitative research. Secondly, the use of the Indonesian Physical Fitness Test (TKJI) as a data collection instrument is a distinct advantage (Marasabessy, 2023; J. Pendidikan et al., 2023). The TKJI is a valid and reliable measurement tool specifically designed to measure various aspects of physical fitness, such as speed, strength, endurance, and agility. By using the TKJI, this research can collect accurate and standardized data, ensuring that the results obtained reflect the students' physical condition appropriately.

Third, sample selection using a purposive sampling technique is also an advantage of this study (Firmansyah & Dede, 2022; Lenaini, 2021). This technique allows the researcher to select a sample that is truly representative of the population under study, in this case, male students aged 13-15 years. Thus, the results of this study are more relevant and can be generalized to this age group in the school concerned. In addition, data analysis using the Pearson correlation method provides advantages in terms of interpretation of results (Material et al., 2023; Zakaria et al., 2023). This method allows researchers to see the linear relationship between two variables, namely physical fitness level and learning achievement, so as to provide clear conclusions about the influence of one variable on the other. The results of the analysis show a significant relationship, which supports the hypothesis that physical fitness has a positive impact on student learning achievement.

The results of this study are in line with various previous studies showing that physical fitness has a positive correlation with academic achievement. For example, research conducted by other researchers showed that regular physical activity can improve the cognitive function and academic

performance of students (Burhanuddin et al., 2024; Hizbulloh & Resita, 2023; Mei et al., 2024; Pambudi et al., 2022). Other studies have also found that physical fitness is associated with improved attention and executive function in children. This study adds additional evidence to the existing literature with a specific focus on junior high school students and PE subjects (Nurulita et al., 2024; Syafruddin & Hasanuddin, 2023).

While this study provides valuable insights, some limitations need to be noted. Firstly, this study only involved a sample from one school with a limited number of respondents, so the results may not be generalizable to all school contexts. Secondly, this study used a qualitative descriptive method, which may have limitations in quantitatively measuring the relationship between physical fitness and academic achievement. Based on these limitations, recommendations for future research are as follows: first, future researchers can conduct studies with more extensive and diverse samples to improve the generalizability of the results.

Second, a mixed methods research approach that combines qualitative and quantitative data will be used to gain a more comprehensive understanding of the relationship between physical fitness and academic achievement. Finally, developing and testing specific and structured physical fitness programs across different school contexts to evaluate their effectiveness in improving students' academic achievement. By addressing these limitations, it is hoped that future research can contribute more breadth and depth to the development of educational policies that support student health and academic achievement.

4. CONCLUSION

From the results of the analysis, it can be concluded that there is a significant influence between the level of physical fitness and student learning achievement. Students with better physical fitness tend to have higher learning achievement. This confirms that physical fitness is an essential factor that supports students' learning process, especially in subjects related to physical activity. This conclusion suggests that efforts to improve students' physical fitness need to be a significant concern in the development of curriculum and education programs in schools. Thus, improving students' physical fitness can be an effective strategy to achieve better academic performance.

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