



## Survey of Physical Fitness Levels in Educational Park Using Outdoor Laboratory

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### Abstract

The objective of the survey on the physical fitness level of class VII students at SMP Negeri 2 Indralaya Utara utilizing an outdoor laboratory in an educational park is to present the findings. This study's methodology employs a survey approach. The Indonesian Physical Fitness Test (TKJI) norm test instrument was utilized to gather the descriptive outcome data for this investigation. Seventy students from class VII at SMP Negeri 2 Indralaya Utara served as the study subjects. Purposive sampling was utilized to choose the participants, and test measurement procedures were used to evaluate the results. The physical fitness levels of class VII students at SMP Negeri 2 Indralaya Utara were used to provide quantitative descriptive data, with 79% of the pupils falling into the moderate classification, 14% into the good classification, and 7 % into the less classification. The result of this study shows an increasing awareness among SMP Negeri 2 Indralaya Utara students on the importance of maintaining their physical health. According to the TKJI norm table, the study's findings indicate that SMP Negeri 2 Indralaya Utara pupils likely to have physical fitness levels that fall into the moderate group (S).

### How to Cite

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## INTRODUCTION

Sporting events are crucial for maintaining and enhancing one's physical and mental well-being. A person's body is maintained in a healthier state as long as they engage in physical exercise on a regular basis. Having a healthy lifestyle is important for carrying out regular tasks without being overly exhausted after doing simple ones. Physical fitness in this instance is undoubtedly a key component supporting physical exercise. Physical fitness, in the opinion of Widiastuti (Faqih & Hartati Yuli, 2017), is a crucial part of health since it enables someone the stamina to carry out worthwhile tasks without being exhausted while still being able to engage in other activities. From young infants to adults, everyone needs to be physically active.

Starting with PJOK learning activities, schoolchildren may maintain their physical condition. The learning of all sports benefits greatly from the involvement of physical education teachers. Because it will effect their pupils' physical activities, teachers need to be aware of each student's physical condition. Teachers require basic data on student fitness as a foundation for lesson designs in order to meet the learning objectives, particularly in PJOK learning at school, which aims to enhance student fitness. Of course, pupils require practice if they want to achieve their best physical outcomes. Exercise is a method of making an attempt to enhance both the offenders' mindset and the organs' working condition.

A training program that will direct the implementation must be created for training plans (Hartati et al., 2019). The amount of training load delivered grows daily, and training is a methodical, repeating process that leads to progressive improvement (Waluyo, 2012). Exercise is a methodical procedure that is done with increasing loads in order to prepare pupils' physical condition.

Based on observations made on September 19, 2022 at SMP Negeri 2 Indralaya Utara, researchers discovered a problem: children continued to show little interest in running activities in PJOK learning, such as playing football and baseball, although doing so unknowingly. According to the majority of students interviewed in class VII.2, during PJOK sessions, students were allowed free reign to engage in any activities and their sports teachers hardly ever paid them any attention to invite them to learn how to exercise effectively as a

group. When playing sports at home, students like volleyball and badminton since they are easier to play than jogging.

In addition, students rarely jog in the morning or the evening instead opting to play since they believe running to be a very tiring activity. This truth explains why the state of physical fitness in schools is still stagnant, which is brought on by a dearth of student movement activities that make it simple for youngsters to tire out when engaging in sports activities. In addition to being physically unfit and lacking the endurance to do demanding physical tasks, overweight students often have low self-esteem. A variety of issues also made it difficult for students to complete the PJOK subject hours at school, which were only held for 2-3 hours each week.

The TKJI exam (Indonesian Physical Fitness exam) was used to measure pupils at SMP Negeri 2 Indralaya Utara's level of physical fitness, which researchers believe is crucial to explore given the context of this issue.

The level of physical fitness of class VII students at SMP Negeri 2 Indralaya Utara is not yet documented statistically. The results of interviews with PJOK instructors at SMP Negeri 2 Indralaya Utara were used to validate this. According to the teacher, the students did not fully comprehend that the TKJI test (Indonesian Physical Fitness Test) is a standardized test to evaluate the level of physical fitness of students in Indonesia; this is difficult to do due to the limited facilities and infrastructure and requires a lot of work and time. The researcher intends to conduct a study titled « Survey of Physical Fitness Levels in Educational Park Using Outdoor Laboratory» in light of the historical background of the aforementioned problems.

## METHOD

A survey approach is employed in this investigation. This study falls under the category of descriptive research, which is an efficient technique for describing existing phenomena, including natural and engineering phenomena, based on the goal of the research design. In the meanwhile, a survey, according to Arikunto in (Huda & Wisnu, 2015), is a technique of gathering information on the variables that support the accuracy of physical fitness tests, then identifying these variables to investigate their roles.

Teachers, learning resources, curricula, teaching strategies, and students themselves may all be used as points of focus in the development of effective teaching-learning characteristics

(Huda & Wisnu, 2015). It is claimed that a survey is systematic if, before to performing it, it has been decided who will conduct it, where it will be conducted, when, for how long, what will be observed, what data will be gathered, and how it will be conducted. As a result, the researcher may do this survey definition in person. The purpose of this study is to assess the physical fitness of class VII students at SMP Negeri 2 Indralaya Utara.

The data collecting method is a technique used by researchers to get the necessary data, according to (Arikunto & Suharsimi, 2014), In order to make the task of gathering data easier, researchers utilizing this approach require tools, or instruments. The facilities at FKIP Sriwijaya University were utilized for this research, which was conducted there. The research instrument is a tool for measuring and gathering data. Variable is a notion with variety that is the focus of inquiry. Dependent variables that are impacted and independent variables that have an influence are the two categories into which the variables are split. One independent variable—the level of physical fitness of the students—was included in this study. The TKJI test for children aged 13 to 15 has been selected by the researcher as the method for gathering data. It includes:

- a. Male:
  1. Run 50 m
  2. Pull ups
  3. Sit ups
  4. Vertical leaps
  5. Run 1000 m
- b. Female:
  1. Pull-ups
  2. Sit-ups
  3. Run 50 m
  4. Vertical leaps
  5. Run 800 m

## RESULTS AND DISCUSSION

Participants must be in excellent health and prepared to take the TKJI exam at the day of the test. The test takers should be aware of how the exam is administered, and it is desired that they would warm up before the test. A student is deemed to have failed the course and will not get a mark if he or she is unable to pass one or more test kinds. Researchers utilized the Indonesian Physical Fitness Test (TKJI) out of the five available physical fitness tests since each test item was standardized to reflect the circumstances of Indonesian students (Arifandy et al., 2021).

The study samples, class VII students from

SMP Negeri 2 Indralaya Utara, participated in a series of physical fitness tests, the results of which were used to generate the data. After each sample completed the test using the TKJI instrument as part of the data collecting procedure, the data was recapitulated using the TKJI instrument to determine each student's score.

Based on the recapitulation of test results using the TKJI instrument using the SPSS 22 program, 70 class VII students from SMP Negeri 2 Indralaya Utara were identified, 35 of whom were male and 35 of whom were female. By comparing the maximum score of 5 (excellent) and the lowest score of 1 (very less) on each test item, information on the level of physical fitness among class VII students at SMP Negeri 2 Indralaya Utara is gathered.

Descriptive analysis of percentages and frequencies was used to process the study findings after data analysis. For participants aged 13 to 15, the test included a further 50-meter run, an 800-meter run for females, a 1000-meter run for males, sit-ups, pull-ups, and a vertical jump.

### 1. 1000m Run (Male)

Based on the findings of the statistical description recapitulation data, the maximum value is 12, the minimum is 5, the range is 7, the mean is 8.31, the standard deviation is 2.147, the variance is 4.608 and is legitimate.

### 2. 800m Run (Female)

Based on the statistical description recapitulation data, the maximum value is 12, the minimum is 5, the range is 7, the mean is 8.31, the standard deviation is 2.147, the variance is 4.608, and the validity is.

### 3. Run 50m

Based on the statistical description recapitulation data, the highest value is 971, the minimum is 6, the range is 965, the mean is 502.84, the standard deviation is 226.456, the variance is 51282.269, and the data are legitimate.

### 4 Sit-Ups,

Based on the statistical description recapitulation data, the maximum value is 49, the lowest is 8, the range is 41, the mean is 28.54, the standard deviation is 9,334, the variance is 87,121, and the value is genuine.

### 5. Vertical leap

Based on the statistical description recapitulation data, the maximum value is 72, the lowest is 18, the range is 54, the mean is 36.79, the standard deviation is 13.269, the variance is 176.005, and the data are legitimate.

### 6. Pull-ups

Based on the statistical description recapitulation data, the maximum value is 48, the mi-

nimum is 1, the range is 47, the mean is 19.50, the standard deviation is 16.319, the variance is 269.587, and the data are genuine.

According to the (Kemendikbud, 2010), the Indonesian Physical Fitness Test is used to classify the degree of physical fitness of students between the ages of 13 and 15 and to measure achievement. Each test question is then examined using a table of % descriptive norms. The TKJI for ages 13 to 15 years, published by the Physical Fitness and Recreation Center of the Ministry of Education and Culture Jakarta in 2010, was used in this study to determine the degree of physical fitness based on the different test criteria. The table of values and the table of norms for the Indonesian physical fitness exam are the tables that are utilized as the value and norm tables. According to the **Table 1 & Table 2**.

**Table 1.** Male Children Aged 13 To 15 Years' Physical Fitness Test Results

Value	Run 50m	Pull Up	Sit Up	Vertical Jump	Run 1000m
5	S.d - 6,7"	16+	38+	66+	s.d - 3'04"
4	6,8 - 7,6"	11 - 15	28 - 37	53 - 65	3'05" - 3'53"
3	7,7" - 8,7"	6 - 10	19 - 27	42 - 52	3'54" - 4'46"
2	8,8" - 10,3"	2 - 5	8 - 18	31 - 41	4'47" - 6'04"
1	10,4" - dst	0 - 1	0 - 7	0 - 30	6'05" - dst

**Tabel 2.** Female Children Aged 13 To 15 Years' Physical Fitness Test Results

Value	Run 50m	Pull Up	Sit Up	Vertical Jump	Run 800m
5	S.d - 7,7"	41"+	28+	50+	s.d - 3'06"
4	7,8 - 8,7"	22" - 40"	19 - 27	39 - 49	3'07" - 3'55"
3	8,8" - 9,9"	10" - 21"	9 - 18	30 - 38	3'56" - 4'58"
2	10,0" - 11,9"	3" - 9"	3 - 8	21 - 29	4'59" - 6'40"
1	12,0" - dst	0" - 2"	0 - 2	0 - 20	6'41" - dst

Sumber: Pusat Pengembangan Kualitas Jasmani, 2010: 28

In 2010 (Kemendikbud) Because the units of measurement used for each test item are different, such as:

- Test size 50 m run, 800/1000 m run, the achievement of each item by students who have taken the test is only raw data; it is not possible to directly determine the level of physical fit-

- ness of students based on their achievement.
- The number of pull-up repetitions is measured in time.
- The repetitions of motion for sit-ups are measured in minutes and seconds.
- Units (centimeters) are used for vertical leap.

Total Value	Classification
22 - 25	Excellent (BS)
18 - 21	Good (B)
14 - 17	Medium (S)
10 - 13	Less (K)
5 - 9	Very Less (KS)

**Figure 1.** TKJI Classification Age 13-15 Years

**Table 3.** Male students' TKJI test results.

Norm Range	Classification	Frequency	Relative Frequency
22 X ≥ 25	Excellent (BS)	0	0%
18 ≤ X < 21	Good (B)	4	11,4%
14 ≤ X < 17	Medium (S)	27	77,1%
10 ≤ X < 13	Less (K)	4	11,4%
5 ≤ X < 9	Very Less (KS)	0	0%

Based on **Table 3.**, the TKJI test results for males between the ages of 13 and 15 were obtained for a very excellent categorization (BS) 0 (zero), 4 (11.4%) in the "good" category (B), 27 (77.1%) in the "medium" category (S), 4 (11.4%) in the "less" category (K), and 0 (zero) in the "very less" category (KS).

**Table 4.** Female students' TKJI test results.

Norm Range	Classification	Frequency	Relative Frequency
22 X ≥ 25	Excellent (BS)	0	0%
18 ≤ X < 21	Good (B)	4	17,1%
14 ≤ X < 17	Medium (S)	27	80%
10 ≤ X < 13	Less (K)	4	2,9%
5 ≤ X < 9	Very Less (KS)	0	0%

Based on **Table 4**, the TKJI test results for females between the ages of 13 and 15 were acquired for a very excellent categorization (BS) 6 individuals (17.1%) fall under the "good" category (B), 28 people (80%) fall under the "medium" category (S), 1 person (2.9%) falls under the "less" category (K), and 0 people (0%), fall under the "very less" category (KS).

The intermediate category, as determined by the findings of the TKJI survey completed at SMP Negeri 2 Indralaya Utara, indicates that teachers have a significant role to play in encouraging pupils to become more physically fit. The components of any typical human capacity will be developed through physical education, which is a difficult subject. The organization of the physical education learning process should take into account a number of factors, including the method and the students' level of preparation. Everybody should be physically active, but especially pupils who are attending school (Destriana, Ananda Elrosa Dea, 2022).

According to study findings, sport is one of the subjects in school education that is associated to physical fitness and student learning outcomes (Hartati et al., 2020), even if in terms of the learning process, the teacher's work is a matter of importance, but the psychological element. Additionally, students have a significant impact on the standard of instruction.

Sports activities will always be connected to physical education curriculum. Sport and physical fitness are strongly intertwined, therefore PJOK sessions at school typically include information on physical fitness as a whole. According to Wiarto in (Bernadus, 2021), physical fitness is the body's capacity to adapt (adjust) to the physical liberty granted to it without being overly exhausted.

The physical fitness component is a component of physical fitness, which functions as a single entity and cannot be divided into its component parts. According to Safitri in (Damsir et al., 2021) "Physical fitness" is the capacity to perform everyday tasks without feeling overly exhausted. According to (Arifandy et al., 2021), physical fitness is a state of health that characterizes one's capacity and aptitude to carry out specific tasks at their highest level of efficiency without feeling overly worn out. Physical fitness apart from having the benefit of functioning the body's organs so that they work well can also support the learning process at school (Rizki, 2020). Having physical fitness for students will be very helpful in carrying out daily activities because people who

have physical fitness can carry out various physical activities (Kurniawan Wibowo Ari, Surya Hadi Krisna Kawido, 2022).

According to Djumaini, the level of fitness that every top performer possesses will aid in boosting focus by about 30%, according to the scientific publication "Fitness and Intelligence." Both internal and external elements, in his opinion, might have an impact on a person's physical health.

Beyond physical fitness, consistent diet maintenance must also be a top priority to maintain a healthy body and mental condition. Physical fitness is important because it benefits the body in ways that make it feel better and can lessen the burden on the mind so that feeling more will be better and happier (Hartati et al., 2020).

The Indonesian Physical Fitness Level (TKJI) test yielded findings with a maximum value of 107.66 and a minimum value of 7.70, according to study by (Puspitasari, 2017). The variance is 355.32, the mean is 51.53, the median is 48.88, the mode is 43.78, the standard deviation is 18.85. The total findings of the students' level of physical fitness at SMP Negeri 2 Sendang in Tulungagung Regency reveal an excellent classification of 20%, sufficient at 69%, and less at 11%. Therefore, based on these facts, it is possible to classify pupils at SMP Negeri 2 Sendang in Tulungagung Regency as having a satisfactory degree of physical fitness.

The results of the study by (Yuliana & Sugiharto, 2019) on the TKJI test performed on 14-year-old athletes at SBB Putra Tugumuda Semarang are in a good classification, with an average score of 18.43 and the smallest and greatest scores being 16 and 22, respectively.

According to TKJI male athletes at SBB Putra Tugumuda Semarang, the level of physical fitness is classified as very less (KS), less classification (K), medium category (S), and generally good category (B), with a percentage of 57% or as many as 8 athletes, and excellent classification (BS), with a percentage of 7% for one athlete.

The research the researchers conducted was related to the research findings they discovered. According to research by (Yuliana & Sugiharto, 2019), which received a good percentage of 57% and a moderate proportion of 36%, the percentage is affected by the fact that the participants were athletes, resulting in a good percentage (B) receiving a sizable percentage. Naturally, it can be inferred from the findings of the researchers' study that regular students (as opposed to athletes) will perform below par on the TKJI exam.

Both internal and external influences have

an impact on this component. Physical exercise, rest, bodily health, and diet are the extrinsic elements in question. While genetics, heredity, gender, and age are considered internal influences.

Based on the data, it can be concluded that both males and females in class VII SMP Negeri 2 Indralaya Utara are, on average, in the medium classification (S). From a population of 70 individuals, 55 people, or 79%, were categorized as medium (S), 10 people, or 14%, as good (B), and 5 people, or 7%, as less (K). These findings suggest that the TKJI test for class VII students at SMP Negeri 2 Indralaya Utara did not categorize pupils as excellent or very less.

The class VII students at SMP Negeri 2 Indralaya Utara who have never taken the TKJI test before must adjust when taking the test, which is one of the numerous reasons that might contribute to this. Lack of sincerity and focus during the TKJI test is another factor that impacts test results, resulting in subpar student scores. Physical fitness issues with some pupils should be taken into consideration since they will have a significant impact on both the learning process and the learning results.

At SMP Negeri 2 Indralaya Utara, teachers and grade VII students must, in this case, pay particular attention to how prepared pupils are to adjust to physical demands and daily work in a proactive and effective manner. Students in good physical condition will be better able to concentrate and accomplish their assignments with passion.

Students who are in good physical shape will be more able to focus on their studies and complete their homework with enthusiasm. Furthermore, pupils that have sedentary lifestyles or habits have lower levels of physical fitness. The practice of being sedentary every day is unquestionably affected and affected by other factors, such as advancements in science and technology.

For instance, purchasing and selling items online, purchasing meals, playing games, browsing social media, and many more activities. To sustain physical fitness so that it improves, there must be follow-up connected to the habit of reacting to the world of science and technology.

It's crucial for someone to keep up with their routines as a researcher who investigates and tests the degree of physical fitness. The practice of staying up late to sleep is obviously very bad for the body. Lack of sleep will affect a student's performance in many areas, particularly their physical health and their ability to concentrate. As a result, maintaining a healthy lifestyle, getting enough sleep, engaging in physical activi-

ty, and adopting good living choices are necessary to achieve a certain degree of physical fitness.

## CONCLUSION

Based on the findings of the study, it can be said that the grade VII students of SMP Negeri 2 Indralaya Utara who participated in the survey test for the level of physical fitness of Indonesia (TKJI) used the outdoor laboratory of the educational park had 55 respondents (79%) who fell into the medium classification, 10 respondents (14%) who fell into the good classification, and 6 respondents (7%) who fell into the less classification. In light of this, it can be said that pupils at SMP Negeri 2 Indralaya Utara often score in the moderate range on TKJI tests.

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