

Physical Fitness Level Profile of Students at SDN Cawang 01 East Jakarta Using the Phase C Physical Fitness Test Instrument for Indonesian Students (TKSI)

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Abstract

This research aims to determine the level of physical fitness of students at SDN Cawang 01 East Jakarta using the Indonesian Student Physical Fitness Test (TKSI) phase C instrument. The research method used in this research is a quantitative descriptive research method using a survey approach which will be used to process the data using directly related to the physical fitness of students at SDN Cawang 01 East Jakarta. The data collection procedure uses the phase C Indonesian Student Physical Fitness Test (TKSI) instrument issued by the Ministry of Education and Culture of the Republic of Indonesia. The sample in this research was class V students at SDN Cawang 01 East Jakarta, totaling 30 students. The sampling technique is by total sampling. Based on the results of data analysis and discussion, it was found that the level of Physical Fitness of Class V Students at SDN Cawang 01 East Jakarta was in the "Very Poor" category at 13% (4 students), "Poor" at 27% (8 students), "Medium" at 23% (7 students), "Good" 30% (9 students), "Very Good" 7% (2 students). Based on the description above, with an average score of 15.8, it can be concluded that the Physical Fitness Profile of Class V Students at SDN Cawang 01 East Jakarta is in the "Medium" category.

Keywords: Elementary Students , Fitness Test Physical Fitness Profile, TKSI Phase C.

1 INTRODUCTION

Physical fitness is the forerunner of physical fitness in general, one aspect that is visible in someone who is said to be healthy, fresh and fit is the state of their physical appearance (Akhriyadi, 2022; Fjortoft, et.al 211). In carrying out physical activities in daily life, humans need excellent physical fitness, but these needs are not the same. This difference is caused by adjusting the type of activity or work carried out.

A good level of physical fitness will make a student able to work effectively and efficiently, not easily get sick, learn more passionately and enthusiastically, and be able to optimally and be able to face challenges in life both in the school environment and in society (Arisman, er.al., 2023; Ramadhana, 2016). For students, physical fitness is very important to support academic and non-academic learning processes, as stated by Ritonga & Yarni in their research entitled "The Relationship between Physical Fitness and Learning Motivation and the Learning Outcomes of Class V Students at SDN 12 Pulau Punjung" that student with physical fitness and good learning motivation will also get good learning results. Especially in physical subjects and sports which require a lot of physical movement and require students to have good physical fitness. Having good physical fitness can increase motivation to learn and provide positive energy in the body, which is very good for completing activities at school, at home and in the social community.

As is known, PJOK can be interpreted as an integral part of education, aiming to develop aspects of physical fitness, movement skills, critical thinking skills, social skills, reasoning, emotional stability, moral actions, aspects of a healthy lifestyle and introduction to a clean environment through physical activity (Subekti, et.al., 2021).

Standardized test and measurement instruments are available with various variations and procedures according to the characteristics of "Testee" or the person being tested/measured. There are many physical fitness test options in the world such as the AAHPER test Youth Fitness, Texas Youth Fitness, South Carolina Test used in America, NAPFA (The National Physical Fitness Award/Assessment) in Singapore, Manitoba Physical Performance of Canada, Australian Student Fitness Test in Australia, and the standardized ACSPFT for Asian countries.

In Indonesia, the Indonesian Physical Fitness Test (TKJI) is known and used, which has standard characteristics and procedures used. Based on the results of searches of several journal articles in Indonesia, it was found that students' fitness tests at elementary, middle and high school levels only used TKJI. In its implementation, several teachers complained about difficulties in providing facilities and infrastructure to carry out the TKJI fitness test, the procedures for carrying out the test were complicated, the ratio of students to teachers was not balanced so that the test could not be completed in one meeting. This means that the TKJI is the only physical fitness test used by PJOK teachers in Indonesia, but it has never been revalidated after the TKJI has been used for approximately 38 years.

Currently, the government through the ministry of education and culture (2024) has created a guideline for developing the Indonesian Student Fitness Test (TKSI) which is valid and reliable, easy to apply, and helps to calculate test results through digitalization. TKSI is a student fitness test that is adoption, modification and innovation. It is hoped that TKSI will become an alternative for students' physical fitness tests in the era of the industrial revolution 4.0. The Indonesian Student Fitness Test (TKSI) is a package of a series of fitness tests for Indonesian students which must be carried out in their entirety without subtracting or adding other test items (Kemendikbud, 2023). The expected goal of this TKSI is that teachers of PJOK SD/MI, SMP/M.Ts, SMA/MA/SMK/MAK, Widyaiswara PJOK, Lecturers, Practitioners and Sports Trainers are able to use the TKSI instrument in measuring students' fitness tests. , to serve as a guide in carrying out tests and exercises, as well as as a data processing and storage tool, and even as a predictor in developing students' talents in sports.

TKSI Phase C, for elementary school children in grades 5-6 which consists of 5 test items including: (1) Child Ball Test, It is a test carried out by throwing a ball against a wall 2 m away, with a minimum height of 2 m using 1 hand and catching it using 2 hands for 30 seconds. modification of Measuring Physical Fitness in Children Who Are 5 to 12 Years Old with a Test Battery That Is Functional and Easy to Administer. The purpose of this test is to measure the student's hand-eye coordination. (2) Case Case Ball, Test This is a test carried out by throwing 10 tennis balls from below using one hand into a 30 cm diameter basket from 3 meters. Modification from Ashok, C. developed in (2008). Test your physical fitness. Gyan Publishing House. This test aims to measure students' level of accuracy abilities. (3) Move the Ball Test is a test carried out by moving a ball placed in a motorbike tire between two legs for 30 seconds. This test is a modification of MacKenzie (2005). "101 Performance Evaluation Tests". London: Electric Word plc. This test aims to measure the strength of students' abdominal muscles. (4) Shuttle Run 8 x 10m Test, is a back and forth running test covering 8 X 10 meters between two parallel lines while moving 4 balls, done as quickly as possible. (adopted from Run 4 x 10 m). The purpose of the test is to measure student agility. (5) 600m Run Test, is a test carried out by running 600 m. This test was adopted from the Indonesian Physical Fitness Test for ages 10-12 years. The purpose of the test is to measure students' heart and lung endurance.

Physical fitness is one of the areas of physical learning material which is also a specific learning objective that is not carried out and must be fulfilled by other subjects

(Gunarsa, et.al., 2021; Mutaqin, 2018). Physical fitness is an important element in supporting students' daily activities. The degree of physical fitness needs to be measured accurately, for this reason test and measurement instruments need to be provided (Risaldi, et.al., 2023; Prianto, 2022).

SDN Cawang 01 East Jakarta is one of the schools that really cares about the physical fitness of its students. In PJOK learning, teachers always provide physical fitness training material as a provision for their students in facing daily activities at school or in the community. However, PJOK teachers often have difficulty monitoring their students' physical fitness, due to inadequate facilities for carrying out the Indonesian physical fitness test (TKJI). Teachers' general knowledge of the Indonesian Student Fitness Test (TKSI) is also an obstacle when they want to apply TKSI to the Physical Education teaching and learning process.

Based on the explanation above, the presence of the Indonesian Student Fitness Test (TKSI) as an alternative physical fitness test for students which is more practical and easier to apply has certainly attracted the interest of researchers in conducting research on the physical fitness profile of students at SDN Cawang 01 East Jakarta using the phased Indonesian student fitness test instrument.

2 RESEARCH METHODS

The research method used in this research is a quantitative descriptive research method using a survey approach which will be used to process data directly related to the physical fitness of students at SDN Cawang 01 East Jakarta (Suharsimi, 2021; Atmazaki et.al., 2023; . The population in this study were all students in class 5D at SDN Cawang 01, East Jakarta. The sampling technique in this research uses a total sampling technique, namely the entire population is used as a sample. The samples taken were all class 5D students at SDN Cawang 01, East Jakarta.

In this research, researchers collected data using the test method. The data source in this research is the fitness test results of class V students at SDN Cawang 01 East Jakarta using the phase C Indonesian Student Physical Fitness Test (TKSI) instrument issued by the Ministry of Education and Culture of the Republic of Indonesia. The phase C physical fitness test for Indonesian students (TKSI) issued by the Ministry of Education and Culture of the Republic of Indonesia has the advantage of fulfilling two requirements, namely valid and reliable, as the researchers explained in the previous chapter. TKSI has also generalized the scores for each test item into 5 categories, namely a score of 5 in the Very Good category, a score of 4 in the good category, a score of 3 in the Medium category, a score of 2 in the Poor category, and a score of 1 in the Very Poor category.

The next step after the data has been collected is in the form of numbers from the calculation results, then it is processed by adding them up, comparing them with the expected amount and obtaining a percentage. The formula used in this research is as follows:

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The next step after the data has been collected is in the form of numbers from the calculation results, then it is processed by adding them up, comparing them with the expected amount and obtaining a percentage.

3 RESULT AND DISCUSSION

3. 1. Results

Physical Fitness Test Results for Class V Students of SDN Cawang 01 East Jakarta using the Phase C Indonesian Student Physical Fitness Test (TKSI) issued by the Ministry of Education and Culture of the Republic of Indonesia which consists of 5 test items including: 1. Child Ball Test, 2. Case Case Ball Test, 3. Move the Ball Test, 4. Shuttle Run 8 x 10m Test, 5. 600 m Run Test has been collected. Next, the data was processed and classified using the norms of the Indonesian Student Physical Fitness Test (TKSI) Phase C, so the following results were obtained:

1. Male Students' Physical Fitness Level

Descriptive statistics on the level of physical fitness of Class V male students at SDN Cawang 01 East Jakarta obtained the lowest score (minimum) 7, the highest score (maximum) 24, the average (mean) 17, the middle score (median) 18, the value that often appears (mode) 18, and standard deviation (STDev) 5. Complete results can be seen in table 6 as follows:

Table 1. Statistical Description of Male Students' Physical Fitness Levels

Statistical Description	
N	15
Mean	17
Median	18
Modus	18
Standard Deviation	5
Minimum	7
Maximum	24

Physical fitness information for Class V Boys Students at SDN Cawang 01 East Jakarta is presented in the following frequency distribution table:

Table 2. Frequency Distribution of Physical Fitness Levels for Male Students

No.	Total Shoes	Category	Frequency	Percentage
1	5 – 9	Less than once	1	7%
2	10 – 13	Not enough	3	20%
3	14 – 17	Currently	3	20%
4	18 – 21	Good	5	33%
5	22 – 25	Very well	3	20%
Amount			15	100%

Based on the assessment norms in table 2 above, the physical fitness level of Class V Male Students at SDN Cawang 01 East Jakarta can be presented in the following picture:



Figure 1. Physical Fitness Levels for Class V Male Students

Based on the table and picture above, it shows that the Physical Fitness Level of Class V Male Students at SDN Cawang 01 East Jakarta is in the "Very Poor" category at 7% (1 student), "Poor" at 20% (3 students), "Moderate" at 20% (3 students), "Good" 30% (5 students), "Very Good" 20% (3 students). Based on an average score of 17, the Physical Fitness Level of Class V Male Students at SDN Cawang 01 East Jakarta is in the "medium" category.

2. Physical Fitness Level of Female Students

Descriptive statistics on the level of physical fitness of Class V female students at SDN Cawang 01 East Jakarta obtained the lowest score (minimum) 7, the highest score (maximum) 22, the average (mean) 14.4, the middle score (median) 15, the value that often appears (mode) 10, and standard deviation (STDev) 4.4. Complete results can be seen in the following table:

Table 3. Statistical Description of Female Students' Physical Fitness Levels

Statistical Description	
N	15
Mean	14,4
Median	15
Modus	10
Standard Deviation	4,4
Minimum	7
Maximum	22

Physical fitness information for Class V Female Students at SDN Cawang 01 East Jakarta is presented in the following frequency distribution table:

Table 4. Frequency Distribution of Female Students' Physical Fitness Levels

No.	Total Shoes	Category	Frequency	Percentage
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No.	Total Shoes	Category	Frequency	Percentage
1	5 – 9	Less than once	1	7%
2	10 – 13	Not enough	6	40%
3	14 – 17	Currently	4	27%
4	18 – 21	Good	3	20%
5	22 – 25	Very well	1	7%
	Amount		15	100%

Based on the assessment norms in table 4 above, the physical fitness level of Class V Female Students at SDN Cawang 01 East Jakarta can be presented in the following picture:

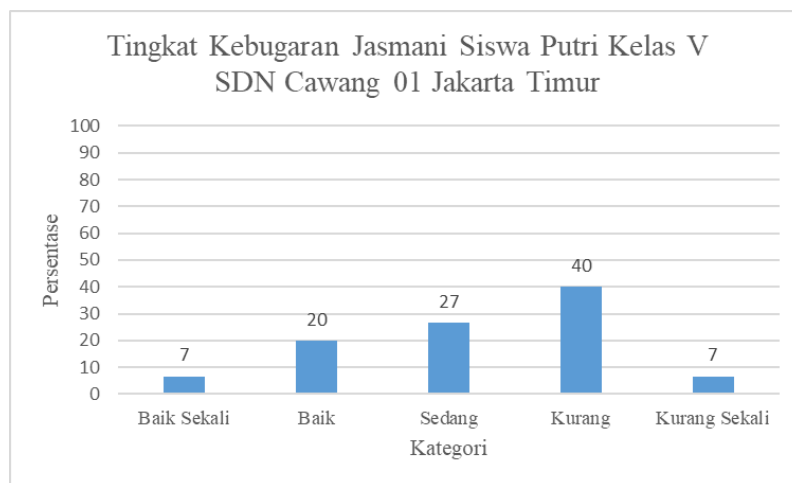


Figure 2. Bar diagram of female students' physical fitness levels

Based on table 4 and figure 2 above, it shows that the Physical Fitness Level of Class V Female Students at SDN Cawang 01 East Jakarta is in the "Very Poor" category at 7% (1 student), "Poor" at 40% (6 students), "Medium" by 27% (4 students), "Good" by 20% (3 students), "Very Good" by 7% (1 student). Based on an average score of 14.4, the Physical Fitness Level of Class V Female Students at SDN Cawang 01 East Jakarta is in the "medium" category.

3. Overall Student Physical Fitness Level

Descriptive statistics on the level of physical fitness of Class V students at SDN Cawang 01 East Jakarta obtained the lowest score (minimum) 7, the highest score (maximum) 24, the average (mean) 17, the middle score (median) 16, the value that often appears (mode) 15, and standard deviation (STDev) 4.68. Complete results can be seen in table 5 as follows:

Table 5. Statistical Description of Physical Fitness Levels of Class V Students at SDN Cawang 01 East Jakarta

Statistical Description	
N	30
Mean	15,8
Median	16
Modus	15
Standard Deviation	4,68
Minimum	7
Maximum	24

Information on the physical fitness of Class V Students at SDN Cawang 01 East Jakarta is presented in the following frequency distribution table:

Table 6. Frequency Distribution of Overall Student Physical Fitness

No.	Total Shoes	Category	Frequency	Percentage
1	5 – 9	Less than once	4	13%
2	10 – 13	Not enough	8	27%
3	14 – 17	Currently	7	23%
4	18 – 21	Good	9	30%
5	22 – 25	Very well	2	7%
Amount			30	100%

Based on the assessment norms in the table above, the physical fitness level of Class V Students at SDN Cawang 01 East Jakarta can be presented in the following picture:

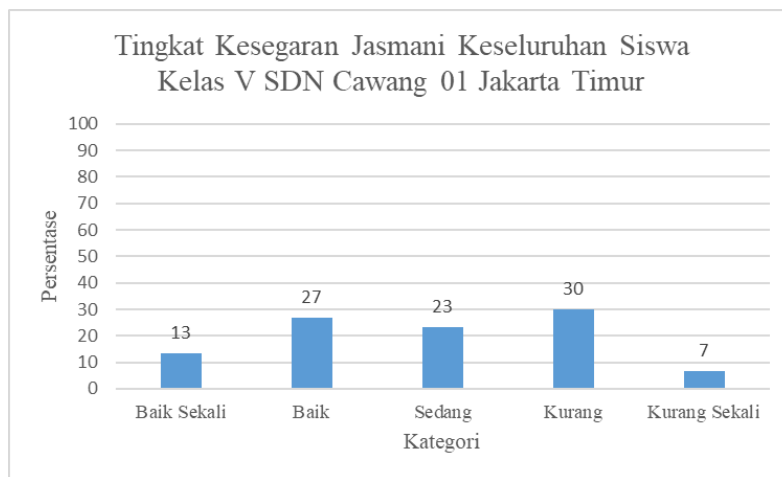


Figure 3. Bar diagram of overall student physical fitness levels

Based on the table and picture above, it shows that the overall level of physical fitness of class V students at SDN Cawang 01 East Jakarta is in the "Very Poor" category at 13% (4 students), "Poor" at 27% (8 students), "Moderate" at 23% (7 students), "Good" 30% (9 students), "Very Good" 7% (2 students). Based on the description above, with an average score of 15.8, the overall physical fitness level of class V students at SDN Cawang 01, East Jakarta is in the "medium" category.

3. 2. Discussion

Physical fitness is one of the important factors that supports student development in elementary school. Elementary school age children need high/good physical fitness. Because elementary school age children tend to be more active in playing and learning at school and in daily activities.

Physical fitness is the ability possessed by a person which helps in carrying out daily activities so that it feels easy without experiencing excessive fatigue and has energy reserves to continue other activities. Components of physical fitness include heart and lung endurance, muscle strength, muscle endurance, flexibility, and body composition which are related to improving health, as well as speed, muscle explosive power, balance, agility, coordination, and reaction speed which are related to improving skills.

In this study, physical fitness is defined as a description of class V students at SDN Cawang 01 East Jakarta in the 2023/2024 academic year who do not experience excessive fatigue in carrying out physical activities and are still able to participate in other activities such as studying at school. Good physical fitness will support students' learning activities to be more enthusiastic and able to focus on learning because their bodies are in a fit condition. On the other hand, if a student's physical fitness is not good, they will experience fatigue and interfere with other activities, including learning activities, because their physical and psychological condition is not in top condition.

The physical fitness of class V students at SDN Cawang 01 East Jakarta was measured using the Phase C Indonesian Student Physical Fitness Test for students in grades 5 and 6 of elementary school which consists of 5 test items that measure hand eye coordination, accuracy, abdominal muscle strength, agility and power. hold the heart and lungs. From the results of the overall discussion above, the physical fitness level of class V students at SDN Cawang 01 East Jakarta for the 2023/2024 academic year is included in the "medium" category.

From the data obtained, there is a diversity of students' physical fitness categories, this is because students carry out different daily activities. Apart from that, what they get from the surrounding environment is also different so that the level of physical fitness that students have varies greatly.

This can happen because it is influenced by several things, not everyone can improve their physical fitness optimally. Each person has advantages and disadvantages in maintaining and improving their own physical fitness. Several factors that can influence students' physical fitness include the nutritional intake they obtain, the daily activities they undertake, the intensity of exercise, the students' environmental conditions, and the parents' treatment of their children. The level of physical fitness possessed by students can be clearly seen through various movements and games that students can do when carrying out physical activities, for example in physical education teaching and learning activities.

According to Priyanto, factors that can influence the level of physical fitness in students include: (1) food and nutritional factors (2) sleep and rest (3) healthy living habits (4) use of gadgets (5) environmental factors both physical and socio-economic. One of the things that influences students' physical fitness is daily activities. Nowadays, with the development of technology, students spend more time playing with gadgets. Excessive and inappropriate use of gadgets will have a negative impact on students. According to Agustini (2018), the habit of using gadgets in portions that are not ergonomic and often can cause changes in the curvature of the spine. Changes in the curvature of the spine, especially in the neck area, can result in pinching of the nerves. The consequences felt from the lightest include aches, pains, numbness to headaches. Apart from that, changes in the curvature of the spine will limit body movement, causing discomfort and laziness in activities. The result of a lack of movement activities will have an impact on students' fitness.

The intensity of exercise also influences students' physical fitness. Exercising is one of the most effective and safe ways to gain physical fitness. Of course, the exercise you do must have a pattern and be done regularly. The pattern in question includes being systematically sustainable and with the right intensity.

The quality of sleep and rest hours also need to be maintained so that physical freshness or fitness is maintained well. A positive impact will be received on body health when the sleep duration is met. All the body's vital functions will be reduced, activity at the metabolic level will be lowered, body cells will be repaired, and energy will be restored during the sleep process. Apart from that, the brain will integrate new knowledge and form new associations when a person sleeps, this will make the mind fresher. If sleep quality is not maintained it will have negative effects on body health. Apart from the things above, the nutritional status obtained by students also influences their physical fitness. During learning, parents need to pay attention to students' nutritional intake while at home. Nutritional status is an external factor that also

influences a person's level of physical fitness. Because basically every child has different nutritional needs depending on age, gender, weight, height and level of physical activity. By having good and adequate nutrition, it is hoped that children can develop and grow well both physically and psychologically. So, if a child has good nutritional status, it will also have a positive impact on their physical form, concentration and level of physical fitness.

The results of this research only confirm that there are many factors that can influence students' physical fitness levels. This depends on what students learn and do. So, to be able to determine a student's physical fitness, it is not only seen through one factor, but other factors are also interconnected with each other. It can also be concluded that during physical education learning at school it also makes a big contribution to being able to improve the quality of students' physical fitness.

4 CONCLUSIONS

Based on the results of data analysis and discussion, it was found that the level of Physical Fitness of Class V Students at SDN Cawang 01 East Jakarta was in the "Very Poor" category at 13% (4 students), "Poor" at 27% (8 students), "Medium" at 23% (7 students), "Good" 30% (9 students), "Very Good" 7% (2 students). Based on the description above, with an average score of 15.8, it can be concluded that the Physical Fitness Profile of Class V Students at SDN Cawang 01 East Jakarta is in the "Medium" category.

3 REFERENCES

- Agustiningsih, D.(2018). *The Influence of Gadgets on Body Fitness*. Taken From [https://Gmc.Ugm.Air conditioning. Id/2018/11/03/Effect-of-Gadgets-On-Body-Fitness](https://Gmc.Ugm.Air%20conditioning.Id/2018/11/03/Effect-of-Gadgets-On-Body-Fitness).
- Akhriyadi, M T, and A Anwar Ishar. (2022). *Survey Of Physical Fitness Levels Of Class Viii Students Of Smp Negeri 3 Pa'jukukang, Bantaeng District During The Covid-19 Pandemic*. Children's Education Article Group (Kapasa): Journal of Education, Social and Humanities 2, no. 3 (2022): 237-48.
- Arisman, Apta Mylsidayu, Bujang Bujang, Dindin Abidin, Azi Faiz Ridlo, Tatang Iskandar, Elly Diana Mamesah, Hasan Basri, Achmad Rifai, and Giri Prayogo.(2023). *Socialization of the Indonesian Student Fitness Test (Tksi) Bekasi City*. Ultimate 1, no. 1, h. 34-41.
- Ashok, C. (2008). *Test Your Physical Fitness*. New Delhi: Gyan Publishing House.
- Atmazaki, Vioreza, N., Nabila, J., & Brillian, M. T. (2023). *Buku Ajar Metode Penelitian*. Pustaka Alur.
- Fjortoft, Ingunn, Arve Vorland Pedersen, Hermundur Sigmundsson, and Beatrix Vereijken.(2011). "Measuring Physical Fitness in Children Who Are 5 to 12 Years Old with a Test Battery That Is Functional and Easy to Administer." *Physical Therapy* 91, no. 7: 1087-95.
- Gunarsa, Singgih Dirga, and Sapto Wibowo. (2021). *The Relationship between Sleep Quality and Students' Physical Fitness*. *Journal of Physical Education* 9, no. 01 (2021): 43-52.
- Ministry of Education and Culture. (2024). *Indonesian Student Fitness Test*. <http://tksi.kemdikbud.go.id/tksi/home>.
- Mackenzie, Brian. (2005). *Performance Evaluation Tests*. London: Electric World Plc 24.
- Mutaqin, Latif Uki. (2018). "Efforts to Improve Physical Fitness Through Circuit Training." *Indonesian Journal of Physical Education* 14, no. 1: 1-10.

- Prianto, David Agus, Maris Aka Satriyo Utomo, Dwindi Abi Permana Abi Permana, and Toho Cholik Mutohir. (2022). *Survey of Physical Fitness Levels and Factors that Influence the Physical Fitness Levels of Junior High School Students in Sidoarjo*. Fresh Journal 10, no. 2, 49–56.
- Ramadhana, Laili, M., and Junaidi Budi Prihanto. (2016). *The Relationship Between Nutritional Status and the Level of Physical Fitness of Students at Plandaan State High School, Jombang*. Journal of Sports and Health Education 4, no. 2 (2016): 467–71.
- Risaldi Ritonga, Irwan, and Nevi Yarni. (2019). *The Relationship between Physical Fitness and Learning Motivation with the Learning Outcomes of Class V Students at Sdn 12 Pulau Punjung*. Education and Teaching Review Journal (JRPP) 2, no. 2 (2019): 276–84.
- Subekti, N., Syaukani, A. A., Fatoni, M., Subroto, S., & Raihan, A. A. D. A. (2021). Exercise Speed, Agility and Quickness (SAQ) To Improve Physical Fitness. *Kinestetik: Jurnal Ilmiah Pendidikan Jasmani*, 5(1), 95-101.
- Sudjana. (2005). *Method Statistics*. Bandung: Tarsito.
- Suharsimi, Arikunto. (2006). *Research Procedures a Practice Approach*. Jakarta: Rineka Cipta.
- Sulastri, S. (2019). *Efforts to Improve Students' Ability in Underpassing by Modifying the Learning Game of Volleyball Using a Hanging Ball to Improve the Ability of Class IV Students at SDN 2 Ketandan, North Klaten District for the 2017/2018 Academic Year*. Journal of Elementary Education 7, no. 2.