Physical Fitness Analysis of SD Negeri 1 Rejosari Students After the Covid-19 Pandemic

Adi Riyanto1, Bukman Lian2, Ilham Arvan Junaidi2

1SD Negeri 1 Rejosari, South Sumatra, Indonesia, 2Universitas PGRI Palembang, South Sumatra, Indonesia

Corresponding author e-mail: adi.2022152004.students@univpgri-palembang.ac.id

Abstract: This research was conducted at SD Negeri 1 Rejosari, East OKU Regency, it was found that the physical condition of students at SD Negeri 1 Rejosari, East OKU Regency during the post COVID-19 pandemic, they had not experienced physical decline, as seen from warming up, they had experienced fatigue even though they had not entered the core material of PJOK (Pendidikan Jasmani, Olahraga, dan Kesehatan Learning). So, I as a researcher am very enthusiastic to know the physical fitness of these students. With the state or condition after the pandemic. The purpose of this study was to determine how far the physical fitness level of SDN 1 Rejosari students after the COVID-19 pandemic. The research method is quantitative descriptive research, namely research by giving tests to students, so that physical fitness results are obtained and analysis is carried out. The instrument used in this study was the Indonesian Physical Fitness Test (Tes Kesegaran Jasmani Indonesia). The test items consisted of a 40-meter sprint, a bent elbow hanging test, a 30-second sitting lie test measured using a sit up test, an upright jump and 600-meter run. The data analysis used in this study calculated the physical fitness performance of SDN 1 Rejosari students after the COVID-19 pandemic. The results state that the analysis of the physical fitness of SDN 1 Rejosari students after the COVID-19 pandemic is still lacking.

Keywords: Covid-19 Pandemic, Fitness, Physical

A. Introduction

Physical Education, Sports and Health are an integral part of the education system as a whole (Yakubova, 2021; Mukhametovich, 2022). In particular, Sports and Health Physical Education aims to develop aspects of physical fitness, movement skills, critical thinking skills, social skills, reasoning, emotional stability, moral actions, aspects of healthy lifestyles, and the introduction of a clean environment through physical activities. Physical Education, Sports and Health is part of general education programs that contribute to the overall growth and development of children. Sports and Health Physical Education is an education that uses physical activity as the main medium for achieving learning objectives, while the main activities are sports (Trudeau & Shephard, 2008).
Sports and physical education cannot be separated from sports because they are part of and influence each other. Sports quite dominate the content of the physical education curriculum at all levels of schooling. Likewise, in practice, this sport is also very popular both by teachers and by students. Schools also have learning outside school hours, namely extracurricular learning.

Physical education in elementary school to students will have a good influence on student fitness and is a very important factor for elementary school students, so that students can do schoolwork and other activities well. It is an educational process therefore; the goal is also educational. In its implementation, physical activity is used as a vehicle or learning experience and through that experience students grow and develop to achieve educational goals. In other words, physical education is a teaching process through physical activity, and at the same time as a teaching process to master physical skills. Physical education not only emphasizes movement skills, knowledge about healthy living, sports, hygiene is also included in the physical education process.

The purpose of physical education in general can be divided into four categories 1) Physical development. This goal relates to ability through activities that involve the physical forces of various organs of a person’s body (physical fitness); 2) movement development. This goal relates to the ability to move effectively, efficiently, smoothly, beautifully, and perfectly (skillful); 3) Mental development. This goal relates to the ability to think and interpret the overall knowledge of physical education into its environment so as to enable the growth and development of students’ knowledge, attitudes, and responsibilities; 4) Social development. This goal relates to students’ ability to adjust to a group or society.

The process of physical education at the elementary school level greatly affects the development of students and to find out the abilities, skills or talents of students in the field of sports. Many factors affect the smooth running of the physical education learning process, such as teacher mastery of learning materials, student interest in the physical education learning process, facilities, sports equipment and space.

The benefits of Physical Fitness for one’s life in carrying out daily activities. Physical fitness is useful to improve the work ability of anyone who has it so that they can carry out their tasks optimally to get better results. Factors affecting physical fitness (Irianto, 2004). There are several factors that can affect a person’s physical fitness including: (a) eating, (b) rest, (c) exercise. These factors are very important to improve one’s physical fitness. Because eating is the main supplier of energy in the body. Then after we have done tiring activities, it is very necessary to rest. Rest here aims to return the body to a fit position. So that you can do your daily activities
well. In addition to eating and resting, exercise or physical activity is one important factor. By exercising we can get physical freshness, as long as the exercise is carried out in a systematic way using motion stimuli to improve or maintain the quality of body functions.

The COVID-19 virus is severe acute respiratory syndrome corona virus 2 (SARS-CoV-2) which can cause respiratory system disorders. This virus spreads through droplets of COVID-19 sufferers that stick to various public places and are accidentally touched by people who the condition of the body is not healthy or the immune system is weak. The spread of this virus is very fast and easy, causing many victims in the world. Especially in Indonesia, this threatening situation has forced the Indonesian government to carry out lockdown and PSBB policies in several areas. PSBB is a large-scale social restriction, where the PSBB and lock down aim to reduce the spread of the COVID-19 virus by forcing people to work at home. To participate in helping the government reduce the risk of spreading the COVID-19 virus.

The development of sports in Indonesia in a historical perspective will provide important lessons on how the history of sports development in Indonesia from the time of the kings before colonization until now will be able to provide a contemporary context and sports development for the future context (Husdarta, 2010). Physical fitness is one aspect that greatly influences the quality of healthy human life. Prasetio (2017) said “Physical fitness has two main components, namely: fitness components related to health include: muscle strength, muscular endurance, aerobic endurance, flexibility. As well as physical fitness components related to skills, among others: coordination, agility, movement speed, muscle explosive power, and balance. The components of physical fitness are the determining factors for the degree of condition of each individual. A person is said to be fit if he is able to carry out all activities of daily life without experiencing significant obstacles and can perform the next task immediately”.

Based on the observations made by researchers at SD Negeri 1 Rejosari, East OKU Regency, it was found that the physical condition of all grade VI students at SD Negeri 1 Rejosari, East OKU Regency during the post-COVID-19 pandemic, they have not experienced physical decline, as seen from warming up, they have experienced fatigue even though they have not entered the core material of PJOK (Pendidikan Jasmani, Olahraga, dan Kesehatan) learning. So, I as a researcher am very enthusiastic to know the physical fitness of these students. With the state or conditions after the COVID-19 pandemic. Based on information and direct phenomena that occur there are students who experience lack of movement in sports from several factors such as easily tired after following the subjects given by PJOK teachers and sleepy after learning physical education, sports and health.
Based on the above background, researchers are interested in conducting a study entitled Analysis of Physical Fitness of SDN 1 Rejosari Students After the Covid-19 Pandemic.

B. Methods

Arikunto (2014) argues that research variables are the object of research or what is the point of concern of a study, which consists of one variable, namely the analysis of physical fitness of SDN 1 Rejosari students after the COVID-19 pandemic. The operational definition of variables in this study is as follows 1) Physical fitness is an activity carried out by a person in carrying out daily activities for a certain time without experiencing significant fatigue and still having the energy reserves to carry out an activity; 2) this COVID-19 virus is a severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) virus that can cause respiratory system disorders.

This research was held at SD Negeri 1 Rejosari, East OKU Regency. The research time was carried out at SD Negeri 1 Rejosari, East OKU Regency in April 2023. Research methods are defined as scientific ways to obtain data with specific purposes and uses (Sugiyono, 2016). This research is quantitative descriptive research, namely research by giving tests to students, so that physical fitness results are obtained and analysis is carried out. The instrument used in this study was the Indonesian Physical Fitness Test (TKJI). The test items consisted of a 40-meter sprint, a bent elbow hanging test, a 30-second sitting lie test measured using a sit up test, an upright jump and a 600-meter run. The instrument used in this study is the Indonesian Physical Freshness Test for children aged 10 – 12 years (Ministry of National Education, 2010) which consists of:

Instructions for the 40 Meter Running Test

a. Purpose This test aims to measure running speed.

b. Tools and facilities
   1) Straight, flat, flat, non-slippery track, 40 Meters away,
   2) Wear the start flag.
   3) Officers use whistles.
   4) Has a stopwatch.
   5) Lime powder or paint to create the start and finish lines.
   6) The officer uses stationery to record the results of running speed.

c. Test officer
   1) Departure officer / signaler.
   2) The timer doubles as the result logger.
d. Implementation
   1) Starting stance, participants stand behind the starting line
   2) Work
      a) After the officer signals “Ready” the participant takes a standing start stance, ready to run.
      b) On the “Yes” cue participants run as fast as possible to the finish line, covering a distance of 40 meters.
   3) Running can still be repeated if:
      a) Runners steal starts.
      b) The runner does not cross the finish line.
   4) Time measurement
      Time measurement performed from the moment the flag is raised until the runner directly crosses the finish line.
   5) Recording of results
      a) The result recorded is the time achieved by the runner to cover a distance of 40
      b) Time is recorded one number after the comma. For example: 07.41 (seven point four one) seconds.

Bending Elbow Hanging Test
a. Purpose This test aims to measure the strength and endurance of arm muscles and shoulder muscles.

b. Tools and facilities
   1) Single bar tool for hanging elbow bending test. Single bars are installed with a height slightly above the participant’s head, starting attitude Participants stand under a single bar, both hands resting on a single bar shoulder-width apart, palm grips facing backwards, Movement With the help of repulsion of both feet, participants jump up until they reach the elbows hanging elbows bent, chin is on top of the single bar
   2) Stopwatch to measure the strength of arm muscles and shoulder muscles.
   3) The clerk carries the form and stationery.
   4) Participants carry chest numbers.
   5) Lime powder or magnesium carbonate

c. Test officer the timer is also the recorder of the test results.

d. Test execution Single bars are installed with a height slightly above the participant’s head.
   1) Initial attitude
Participants stand under a single bar, both hands holding on to a single bar shoulder-width apart. Palm grip facing backwards.

2) Movement
With the help of repulsion of both feet, participants jump upwards until they reach a posture of hanging elbow bend, chin resting on a single bar. This attitude is done by repetition.

Lie Down Sit 30 seconds.

a. Purpose This test aims to measure the strength and endurance of the abdominal muscles.

b. Tools and facilities
1) Flat and clean grass floor/field.
2) Using a stopwatch.
3) The clerk uses stationery.
4) Can use mat or mattress.

c. Test officer
1) Observer or timekeeper.
2) Motion counter concurrently result logger.

d. Implementation
1) Initial attitude
   a) Lying on your back on the floor or grass, knees bent at an angle of 90°, both hands fingers slipping behind the head with fingers intertwined and hands touching the floor.
   b) A person helps hold or press both participants’ ankles so that their feet do not lift.

2) Movement
The movement of the “Yes” gesture of the participant moves to take a sitting posture, so that both elbows touch both thighs, then return to the starting stance. This movement is counted once. This movement is performed repeatedly and quickly without rest, as much as possible for 30 seconds. A movement is considered a failure when:
   a) Both hands were released, so that the fingers were no longer intertwined
   b) Knees bent at a greater angle
   c) Both elbows do not touch the thighs.
   d) There is a rest period in between.
3) Recording of results
   a) The result calculated and recorded is the number of sitting lying movements that can be performed perfectly for 30 seconds.
   b) Participants who are unable to do this sitting lying test, the results are written with the number 0 (zero).

Jump Upright
a. This test aims to measure muscle explosive power and explosive power.
b. Tools and facilities
   1) Meter centimeter scale board, dark color measuring 30 x 150 cm, mounted on a wall or pole. The distance between floors with the number 0 (zero) on the scale is 150 cm.
   2) Chalk powder to find out how high the participant jumped.
   3) The officer prepares the eraser device.
c. Test officer
d. Implementation
   1) Initial attitude
      a) First the fingertips of the participants’ hands are smeared with lime powder or magnesium carbonate.
      b) Participants stand upright near the wall, feet tight, scale boards are on their left or right side. Then the hand near the wall is raised straight up the palm of the hand is attached to the scaled board, thus leaving a mark of the reach of his finger worn on the board.
   2) Movement
      a) Participants take the start with a knee bending posture and both hands swung back. Then participants jumped as high as possible while patting the board with the closest hand, leaving a mark.
      b) Repeat this jump up to 3 times in a row.
   3) Recording of results
      a) Height of achievement without stepping
      b) Achievement height without first jump
      c) Height of achievement from the second jump
      d) Height of achievement from the third jump
600 Meter Run  

a. Purpose  
   This test aims to measure the endurance of the heart, blood circulation and breathing.

b. Tools and facilities  
   1) 600-meter running track.  
   2) Stopwatch.  
   3) Whistle  
   4) Piles.  
   5) Start flag  
   6) Stationery  

c. Test officer  
   1) Departure officer.  
   2) Officer to measure time and record results.  
   3) General helpers.  

d. Implementation  
   1) Starting attitude: Participants stand behind the starting line.  
   2) Movement  
      a) On the “READY” cue the person takes a standing start stance, ready to run.  
      b) On the “Yes” cue participants run towards the finish line, covering a distance of 1200 meters.

Data collection techniques are the most important step in research, because the main purpose of research is to obtain data” (Sugiyono, 2016). The data collection technique used in this study is to use test techniques or deeds and measurements. The scores obtained from the tests to be carried out are summed then the results of the summation will be the basis for determining the category of physical fitness level of grade VI students of SD Negeri 1 Rejosari, East OKU Regency.

The research method is defined as a scientific way to obtain data with specific purposes and uses” (Sugiyono, 2016). The instrument used in this study was the Indonesian Physical Fitness Test (TKJI). The test items consisted of a 40-meter sprint, an elbow-hanging test, a 30-second lying-down test, measured using a sit-up test, an upright jump and a 600-meter sprint. Data collection techniques are the most important step in research, because the main purpose of research is to obtain data” (Sugiyono, 2016). The data collection technique used in this study is by using test techniques or actions and measurements.
The scores obtained from the tests to be carried out are added up and then the results of the sums will be the basis for determining the category of physical fitness level of class VI students at SD Negeri 1 Rejosari, East OKU Regency.

Table 1. Indonesian Physical Freshness Test Scores for boys aged 10-12 years

<table>
<thead>
<tr>
<th>Mark</th>
<th>Run 40 meters</th>
<th>Hang your elbows bent</th>
<th>lay down sitting 30 seconds</th>
<th>Straight jump (cm)</th>
<th>Run 600 meters</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Sd-6.3”</td>
<td>51” up</td>
<td>23 up</td>
<td>46 up</td>
<td>Until 2’09”</td>
</tr>
<tr>
<td>4</td>
<td>6.4”-7.5”</td>
<td>31”-50”</td>
<td>18-22</td>
<td>38-45</td>
<td>2’10”-2’30”</td>
</tr>
<tr>
<td>3</td>
<td>7.6”-8.3”</td>
<td>15”-30”</td>
<td>12-17</td>
<td>31-37</td>
<td>2’31”-2’45”</td>
</tr>
<tr>
<td>2</td>
<td>8.4”-9.6”</td>
<td>5”-14”</td>
<td>4-11</td>
<td>24-40</td>
<td>2’46”-3’44”</td>
</tr>
<tr>
<td>1</td>
<td>9.7”-dst</td>
<td>4”</td>
<td>0-3</td>
<td>23</td>
<td>3’45”</td>
</tr>
</tbody>
</table>

Table 2. Indonesian Physical Freshness Test Scores for women aged 10-12 years

<table>
<thead>
<tr>
<th>Mark</th>
<th>Run 40 meters</th>
<th>Hang your elbows bent</th>
<th>lay down sitting 30 seconds</th>
<th>Straight jump (cm)</th>
<th>Run 600 meters</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Sd-6.7”</td>
<td>40” up</td>
<td>20 up</td>
<td>42 up</td>
<td>Until 2’32”</td>
</tr>
<tr>
<td>4</td>
<td>6.8”-7.5”</td>
<td>20”-39”</td>
<td>14-19</td>
<td>34-41</td>
<td>2’33”-2’54”</td>
</tr>
<tr>
<td>3</td>
<td>7.6”-8.3”</td>
<td>8”-19”</td>
<td>7-13</td>
<td>28-33</td>
<td>2’55”-3’28”</td>
</tr>
<tr>
<td>2</td>
<td>8.4”-9.6”</td>
<td>2”-7”</td>
<td>2-6</td>
<td>21-27</td>
<td>3’29”-4’22”</td>
</tr>
<tr>
<td>1</td>
<td>9.7”-dst</td>
<td>0-1”</td>
<td>0-1</td>
<td>20</td>
<td>4’23”</td>
</tr>
</tbody>
</table>

Table 3. Physical Freshness Test Norms

<table>
<thead>
<tr>
<th>No</th>
<th>Total value</th>
<th>Classification</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>22-25</td>
<td>Very well</td>
<td>(BS)</td>
</tr>
<tr>
<td>2</td>
<td>18-21</td>
<td>Good</td>
<td>(B)</td>
</tr>
<tr>
<td>3</td>
<td>14-17</td>
<td>Currently</td>
<td>(S)</td>
</tr>
<tr>
<td>4</td>
<td>10-13</td>
<td>Not enough</td>
<td>(K)</td>
</tr>
<tr>
<td>5</td>
<td>5-9</td>
<td>Less</td>
<td>(KS)</td>
</tr>
</tbody>
</table>

The data analysis used in this study calculated the percentage of physical fitness of Rejosari 1 Elementary School students after the Covid-19 pandemic with the following formula:

\[ P = \frac{x}{100} \]
C. Result and Discussion

Physical fitness is a translation of the word physical fitness which can be interpreted as a physical condition that describes physical abilities, it can also be interpreted as a person’s ability to do a certain job quite well, without causing fatigue. Physical fitness is a physical condition that describes the potential and physical ability to perform certain tasks with optimal results without showing significant fatigue (Widiastuti, 2015).

There are various factors that affect physical fitness. Irianto, (2004) “there are several factors that can affect a person’s physical fitness including: (a) eating, (b) resting, (c) exercise. These factors are very important to improve one’s physical fitness. Because eating is the main supplier of energy in the body. Then after we have done tiring activities, it is very necessary to rest. Rest here aims to return the body to a fit position. So that you can do your daily activities well. In addition to eating and resting, exercise or physical activity is one important factor. By exercising we can get physical freshness, as long as the exercise is carried out in a systematic way using motion stimuli to improve or maintain the quality of body functions”.

The COVID-19 virus is severe acute respiratory syndrome corona virus 2 (SARS-CoV-2) which can cause respiratory system disorders. This virus spreads through droplets of COVID-19 sufferers that stick to various public places and are accidentally touched by people who the condition of the body is not healthy or the immune system is weak. The spread of this virus is very fast and easy, causing many victims in the world. Especially in Indonesia, this threatening situation has forced the Indonesian government to carry out lockdown and PSBB policies in several areas. PSBB is a large-scale social restriction, where the PSBB and lock down aim to reduce the spread of the COVID-19 virus by forcing people to work at home. To participate in helping the government reduce the risk of spreading the COVID-19 virus.

Health protocol issued by the government in the Decree of the Minister of Health of the Republic of Indonesia Number Hk.01.07/Menkes/328/2020. We see that from a number of points listed in the protocol. There are several simple but important points to be known, understood, and applied by the public such as (Ministry of Health of the Republic of Indonesia, 2020): 1) Wash hands
well and properly; 2) Avoid using personal tools (cutlery, prayer tools, etc.); 3) Maintain personal and environmental hygiene (Atmajanti, 2020).

Related to various factors that have been identified as important, so the frame of mind is an understanding that underlies other understandings, a most basic understanding and becomes the foundation for a thought or a form of process of the whole research to be carried out. A basic assumption is a point of departure for ideas whose truth is accepted by the researcher or investigator. Each researcher can formulate different basic assumptions. The basic assumption in this study is that the analysis of the physical fitness of SDN 1 Rejosari students after the COVID-19 pandemic is still lacking (Mumpuni et al, 2021).

D. Conclusion

The physical fitness of SDN 1 Rejosari students after the COVID-19 pandemic is still lacking

References

Sugiyono. (2016). Qualitative Research Methods, Quantitative, R&D. Bandung: Alfabeta