

# Measuring The Motor Ability of Students Participating Vocational Volleyball Extracurriculars in Cilacap District

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**Abstract:** Extracurricular activities, especially in the field of sports, are one type of activity outside school hours that can improve the quality of fitness and develop students' motor movements. This research aims to determine the value description and analyze the level of motor skills of students participating in extracurricular volleyball at Darussalam Vocational School, Cilacap Regency. The research subjects were 20 students who were participants in extracurricular volleyball at Darussalam Vocational School, Cilacap Regency. This research is included in the type of non-experimental research with a quantitative approach. The research implementation method was carried out using a descriptive method. To find out a picture of students' motor skills, the Borrow Motor Ability Test test instrument was used. The analysis was carried out by analyzing the mean and standard deviation of the data which had previously been converted into a t-score to equate the units. The research results showed that of all the test items carried out by students participating in extracurricular volleyball at Darussalam Vocational School, Cilacap Regency, there was 1 student who was in the very good category (5%), 5 students in the good category (25%), 9 students in the moderate category ( 45%), 4 students in the poor category (20%), and 1 student in the very poor category (5%). Of all the test items carried out, it can be said that the level of motor skills of students who are members of the volleyball extracurricular at Darussalam Vocational School, Cilacap Regency is classified as in the medium category.

**Keyword:** extracurricular, volleyball, motor skills, students

## 1. Introduction

In general, national education has a function and aim, namely to advance the life of the nation by maximizing potential and abilities in students so as to achieve a society with prosperous human resources. Apart from that, education is a process of changing and gaining personal experience become a necessity of life (Leshkovska and Spaseva, 2016).

In an effort to develop the abilities and skills of students at all levels of school education, Physical Education, Sports and Health (PJOK) learning has a very good impact on students, with the opportunity for them to participate openly, it will form good, honest and high integrity.

PJOK learning is not just a school program that keeps children busy, but PJOK learning

will make children hone their skills happily and have fun (Fahlevi. 2014). Meanwhile (Ngera, Y. D., 2017) believes that Physical Education, Health and Recreation is the overall educational process where its implementation is determined by the existing curriculum. Referring to the 2013 Curriculum (K13), sports education is included in one of the important lessons for students because it includes physical fitness, movement skills, sports games, dance, and also recreation which will ultimately result in good body health (Pasha, 2021).

At the end of December 2019, a new type of virus was discovered that shocked people around the world, namely Coronavirus disease 19 (COVID-19). The virus found is classified as a dangerous virus because it can cause infectious disease in humans, namely COVID-19 (Barkley et al., n.d.). This disease is relatively easy to transmit because the spread of the virus is very fast. Apart from fatalities, many things have been affected by COVID-19, including education, the economy, social and many more. Many government efforts to reduce the transmission of COVID-19 involve physical restrictions, locking cities, schools and employment opportunities which have become the new habits of people throughout the world (Bas et al., 2020).

Implementing health protocols has a very important role in reducing the spread of COVID-19. Apart from that, having good physical fitness will help reduce the negative impact of COVID-19. According to (Herlina, H., & Suherman, M. 2020) physical fitness is where the body does not get tired easily when doing strenuous activities so that the body's immunity can be said to be strong in fighting viruses. viruses and bacteria that cause disease. Being physically fit will increase students' ability to concentrate to receive learning material (Hasiati, E. A. 2018). There are many positive benefits from a physically active lifestyle during adolescence, namely increasing fitness cardiorespiration in muscles, bones and increasing cardiometabolism, the effects of which will have a positive impact into adulthood (Guthold, R 2020). In an effort to improve the quality of physical fitness and develop students' motor movements, activities outside of learning hours really need to be paid attention to.

According to (Ramadhan, B., 2017), extracurricular activities are defined as one of the school activities whose implementation is not tied to student class hours (outside school hours) based on the condition of the school carrying out the activity. (Suleiman et al., 2019) said that extracurricular activities themselves have become an important experience in school life because students can be involved in activities that they value that cover the whole, not limited to the school area but also outside the school. The extracurricular activities that students participate in aim to increase and enrich students' insight (Khotimah, n.d., 2017). Enriching insight is done by facilitating every activity carried out by students, in order to optimize the talents of each student. Volleyball extracurricular is one of the extracurricular activities at Darussalam Vocational School, Cilacap Regency. There are many positive things from extracurricular activities that students participate in, including richer motor skills, increased learning experiences outside the classroom, and physical fitness gained by students. All of this will support the course of learning at school.

The success of a teacher in carrying out PJOK learning, both in the context of school learning and in extracurricular activities, of course cannot be separated from the motor

abilities of the students. Nurhasan and Hasanudin in (Mustaqim, E. A. 2018) define motor ability as the capacity of individuals/students to carry out various kinds of movements based on a sense of courage in exercising. . Motor abilities vary and depend on each individual. This cannot be separated from the physical condition of the individual because motor ability is the basis of movement that appears in a person from birth and functions as a support in sports and non-sport movements (Nusufi, M., 2016).

According to (Madrona, P. G., 2014) the goal of motor development is to achieve self-control over our own body so that we are able to utilize all possible actions. Good motor skills will have a positive impact on every student and will support learning activities at school, both intracurricular and extracurricular. But what about the pandemic? Students' motor skills are also affected. The aim of this research is to measure the basic motor skills of students participating in extracurricular volleyball at Darussalam Vocational School, Cilacap Regency using the Borrow Motor Ability instrument and the results obtained will be used as evaluation material for consideration by the school.

## 2. Method

This research was conducted using a quantitative approach. This approach emphasizes the results of research data calculations, namely students' motor skills which are assessed using descriptive methods. This research was conducted in order to determine the motor skills of students participating in extracurricular volleyball at Darussalam Vocational School, Cilacap Regency.

Research design is a preliminary to how the design of a research will be carried out (Maksum, 2018: 114). For the research design, non-experimental research was used. The reason for using this design is because the researcher will observe students without carrying out any manipulation, intervention, or treatment for students participating in extracurricular volleyball at Darussalam Vocational School, Cilacap Regency. The research variables are included in a single variable, namely the motor skills of students participating in extracurricular activities at Darussalam Vocational School, Cilacap Regency because they are the focus of the research.

Students who are members of the volleyball extracurricular at Darussalam Vocational School, Cilacap Regency were used as the subjects of this research. Because the number of students participating in the extracurricular activity was 20 people, the researcher decided to take all subjects as research samples so that the research carried out was included in population research. The research instrument used was the Borrow Motor Ability test which had items (1) Standing Broad Jump. (2) Zigzag Run. (3) Short-put Test With Softball. (4) Wall Passes. (5) 60 Meter Run. (6) Medicine Ball-Put. Of the six items, it is very suitable to be carried out, because it has its own level of ease and difficulty in each test item carried out.

Data collection is the process of collecting research data which includes primary and secondary data (Maksum, 2018:133). Research data was obtained from carrying out tests and measurements on students participating in extracurricular volleyball at Darussalam Vocational School, Cilacap Regency. What is meant by a test is collecting data on motor skills in the form of numbers from tests carried out by students participating in

extracurricular volleyball at Darussalam Vocational School, Cilacap Regency. The following are several requirements that must be met for data collection:

1. Ask the school for permission to conduct research by providing a letter that has been approved by the faculty.
2. Carry out attendance for students who have confirmed being samples in the research.
3. Convey information about the implementation of tests that will be carried out in accordance with existing SOPs.

The procedures for carrying out the research carried out can be described in several points below:

a. Before the test

Students who are ready to take the test must take attendance first, then continue listening to the rules that must be obeyed. Apart from that, every student must comply with every health protocol during the COVID-19 pandemic, such as always wearing a mask, maintaining physical distancing, maintaining cleanliness, and using a hand sanitizer.

b. Implementation of tests

The test in this study was carried out in the Darussalam Vocational School school yard, Cilacap Regency. Because this is during the pandemic, the implementation of health protocols that have been required by the government must be adhered to by everyone who takes the test.

### 3. Results and Discussion

This research activity aims to describe the motor skills of students who are part of the volleyball extracurricular participants at Darussalam Vocational School, Cilacap Regency. Students' abilities were observed through a series of tests to measure the motor skills of students participating in extracurricular activities at Darussalam Vocational School, Cilacap Regency. The categorization of students' motor ability levels is divided into five categories, including Very Good, Good, Medium, Poor and Very Poor. Determination of categories is obtained from the operation of calculating the mean and standard deviation of the test results of students who are research subjects. The data obtained will be converted into a t-score, the aim being that the data obtained can be equalized due to differences in units. This analysis technique has also been used in similar research by (Pambudi, 2020) entitled "Motoric Ability Levels of Class X Male Students at SMA Negeri 1 Padamara Purbalingga". The overall calculation results of this research data analysis are detailed as follows:

**Table 1.** Recapitulation of Student Motor Ability Based on Barrow Motor Ability Test Results

No	Score interval	Kategori	Frekuensi	Presentase (%)
1	≥378,49	Very well	1	5

2	326,16 -378,49	Good	5	25
3	273,84 - 326,16	Currently	9	45
4	221,51 - 273,84	Not enough	4	20
5	≤ 221,51	Very less	1	5
Total			20	100

From the data tabulation above, it can be found that students' motor scores generally consist of 1 student who is included in the very good category (5%), 5 students in the good category (25%), 9 students in the moderate category (45%), 4 students are in the poor category (20%), and 1 student is in the very poor category (5%). Referring to these results, it was found that the motor skills of students participating in extracurricular volleyball at Darussalam Vocational School, Cilacap Regency were in the medium category. Students' own motor skills really support students' activities in every activity, both in learning and outside of school learning.

The results of percentage calculations and data categorization for each test item are listed in the following table.

**Table 2.** Student Motor Ability per Test Item.

No	Item Tes	BS	B	S	K	KS
1	<i>Standing Broad Jump</i>		20%	50%	20%	10%
2	<i>Zig-zag Run</i>	5%	20%	45%	20%	10%
3	<i>Short-put Test With Softball</i>	5%	30%	25%	40%	
4	<i>Wall Pass</i>	5%	25%	50%	5%	15%
5	<i>Run 60 Meters</i>		40%	35%	20%	5%
6	<i>Medicine Ball-Put</i>	10%	10%	40%	40%	

Based on data from table 2, it can be explained that each test item taken by students has a variety of different values. The results of the research on test items (1) Standing Broad Jump, the average student is in the medium category, with a frequency of 10 students (50%), (2) Zig-zag Run the average student is in the medium category. moderate, with a total frequency of 9 students (45%), (3) Short-put Test With Softball the average student is in the poor category, with a total frequency of 8 students (40%), (4) Wall Pass the average student is in the medium category, with a total frequency of 10 students (50%), (5) 60 Meter Running the average student is in the good category, with a total frequency of 8 students (40%), (6) Medicine Ball-Put the average student are in the medium and low categories, with the same frequency of 8 students in the medium category (40%) and 8 students in the low category (40%).

Referring to the overall data obtained, these results are in line with the results obtained by the relevant research entitled "Measurement of the Motor Ability of Public Elementary

School Students for the 2014 - 2015 Academic Year (Study of Class III and IV Students at SDN Sidokare II Sidoarjo)". The results of the research in question show that class III and IV students at SDN Sidokare II Sidoarjo have motor skills that are in the medium category based on the four test items carried out (Alfiani, A. P. 2016). What this research has in common is that it uses tests to measure movement skills. The difference in this study lies in the sample used, so that in a similar study the test item used was the Motor Ability Test for elementary schools. Meanwhile, for this research, because the sample used was high school students whose maturity and motor skills were better than elementary school students, the test item used was Borrow Motor Ability which had an appropriate level of difficulty to carry out.

According to (Renaldo, I. M., & Supriatna, S. 2017) Deepening knowledge in motor skills is a form of result of practice and experience so that relatively permanent changes occur but are not related to any development. In a similar study entitled "Profile of Motor Ability of FPOK Students", it was found that the motor skills of male and female students at FPOK 2019 UPI were included in the sufficient category. However, of the 6 ability tests carried out, there were several motor skills that fell into the very poor category, referring to the results of the Illinois Agility Run Test (Febrianty, M. F. 2020). The similarity in this research lies in the aim of conducting research where motor ability is an important point in research assessment, however the difference in research lies in the instruments used, in a similar study entitled "Profile of Motor Ability of FPOK Students" using standard instruments determined by the Test Institute University Entrance (LTMPT), whereas in this study, the test instrument was the Borrow Motor Ability test with an orientation towards measuring motor skills of students participating in extracurricular activities at Darussalam Vocational School, Cilacap Regency.

#### **4. Conclusion**

Based on the presentation of the results and discussion above, the conclusions in the research are detailed as follows.

1. Each test item carried out has a different average presentation and categorization, this shows that the motor skills of each student in carrying out movements vary greatly.
2. Of all the test items carried out by students participating in extracurricular volleyball at Darussalam Vocational School, Cilacap Regency, the motor ability score can be categorized as moderate, because from the results of the calculation, 9 people (45%) out of 20 people were in the medium category.

#### **5. Suggestion**

Referring to the results and conclusions mentioned, the researcher provides suggestions as a form of input and evaluation material for teachers and extracurricular coaches at Darussalam Vocational School, Cilacap Regency, in order to improve the motor skills of their students. By providing good learning methods that are adapted to school conditions, it is hoped that teachers and extracurricular coaches can understand the characteristics of their students in order to support the achievements of each student both at the regional and national levels.

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