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The Relationship of Motor Ability with Basic Technical Skills for Playing Football

Muhammad Aditya Rajak Samudra^{1✉}, Nurhidayat¹, Pungki Indarto¹

¹Sport Education, Teacher Training and Education Faculty, Muhammadiyah University of Surakarta Surakarta, Central Java, Indonesia

Corresponding author*

E-mail: a810200117@student.ums.ac.id

ABSTRACT

This research aims to determine the relationship between motor ability and basic technical skills for playing football in football UKM students at Muhammadiyah University, Surakarta. The type of research used is quantitative research with a correlational research design. This research was carried out on the psychology football field, Campus 2, Muhammadiyah University, Surakarta, Sukoharjo Regency, Central Java. The population in this study were all students who were members of the Muhammadiyah University of Surakarta football UKM, totaling 80 students with a sample of 20 students. The test instruments used are motor ability tests and basic football technical skills tests. This research data analysis uses normality test, linearity test and correlation test. From several tests carried out, the results showed that there was a significant relationship between motor ability and basic technical skills for playing football in football UKM students at Muhammadiyah University, Surakarta.

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1. INTRODUCTION

Football is a team sport played with 11 people as core players in each team. In the game of football, the goal is to be able to score as many goals as possible against your opponent's goal and defend your own goal so that it doesn't concede, supported by good physical, technical and mental conditions. (Indra & Marheni, 2020). UKM (Student Activity Unit) is one of the platforms available at every university for students to develop their talents and seek more experience in the sports they are interested in, one of which is UKM football. Football is a sport that requires athletes to master good basic technical skills in order to win a match and even win a competition or tournament. In an effort to improve an athlete's performance, there are two factors that influence it, namely internal factors are factors that arise from the athlete's own abilities. Meanwhile, external factors are factors that arise from outside an athlete, for example coaches, friends, parents and so on. There are elements used to improve athlete performance, namely speed, strength, accuracy, agility and skill (Abdullah, 2021). Skill is a method used to describe a person's motor movements who have achieved excellence in their activities (Sutrisna et al., 2018). The basic techniques for playing football are passing, shooting, dribbling, throwing, heading (Ramadan, 2017).

Motor ability or basic movement abilities are abilities that a person has from childhood and develop along with their development and growth (Nusufi, 2016). Basic movement types or motor abilities are divided into 3 groups, namely locomotor skills, non-locomotor skills and manipulative skills (Fitria & Rohita, 2019). There are 5 elements contained in motor ability, namely strength, coordination, speed, balance and agility (Hanif Fudin, Amir Luthfi, 2020). Factors that influence general movement ability are physical ability, mental ability and emotional ability (Rindra Putra Prasetya & Faridha Nurhayati, 2013). The main function of motor ability is to develop the necessary skills and talents of each person, in order to increase employability (Jonas Solissa (2017). In developing movement skills, not only is a coach needed to train an athlete, but also an athlete must also be able to carry out additional exercises carried out independently so that the desired movement skills are achieved more quickly and of course external factors such as parental support and facilities. and infrastructure are also important in developing movement skills.

Based on the explanation above, motor ability greatly influences skills in playing football, especially basic football technical skills, because to be able to master the basic technical skills of playing football, one needs to have a foundation or basis for one's motor skills first, of course supported by the elements that exist in football.

2. METHODS

In this study, 2 test instruments were used, namely the motor ability test which consisted of a 4x10 meter shuttle-run test, a 1 meter wall ball throw-catch test, a stork stand positional balance test and a 30 meter sprint type test. Meanwhile, the basic football technical skills test consists of a dribbling test, short passed test, throw in test, running with the ball test, heading the ball test and shooting at the ball test. The research used is a quantitative type of research with a correlational research design. Quantitative research is research that is based on a person's assumptions, which then determines the variables to be analyzed using the desired research methods or methods. (Ali et al., 2022). Meanwhile, correlational research is research that aims to investigate the extent to which one variable is related to one or more other variables (Hindriyastuti & Zuliana, 2018). This research was conducted on football UKM students at Muhammadiyah University of Surakarta with a sample of 20 students from a total population of 80 students, which was carried out on the psychology football field at campus 2 of Muhammadiyah University of Surakarta, Sukoharjo Regency, Central Java. To measure how big the relationship is between the independent variable (motor ability) and the dependent variable (basic football technical skills), the normality test, linearity test and correlation test are used using the SPSS application

3. RESULT AND DISCUSSION

This research was conducted to find out whether there was a relationship between the independent variable (motor ability) and the dependent variable (basic technical skills for playing football) and how big this relationship was. Based on research conducted in the field, there are overall data results which are summarized in the following table.

Table 1. Summary of Overall Data Results

Variable	Test Instrument	Minimum	Maximum	Average	Standard Deviation
<i>Motor Ability</i>	<i>Shuttle-run</i> 4x10 meters	10.31	14.04	11.6845	1.14403
	Throw and catch the ball against the wall at a distance of 1 meter	29	42	33.20	3,651

Basic Football Technical Skills	<i>Stork</i>	<i>Stand</i>	149	190	164.05	12,609
	<i>Positional</i>					
	<i>Balance</i>					
	Sprint 30 meters		4.80	5.60	5.1015	.25471
	<i>Dribbling</i>		4.54	8.23	5.7945	1.10407
	<i>Short Passed</i>		2	4	2.95	,686
	<i>Throw in</i>		16.18	24.40	19.2845	2.61143
	<i>Running With</i>		2.81	3.66	3.1435	.25852
	<i>The Ball</i>					
	<i>Heading The Ball</i>		8.20	9.70	8.5885	.40789
	<i>Shooting At The Ball</i>		30	45	36.05	4,685

Based on the table above, it can be seen that each test instrument for motor ability and basic football technical skills has a minimum score, maximum score, average and standard deviation for each.

1. Normality test

The normality test aims to find out whether the residual values of the two variables are normally distributed or not. The following are the results of the normality test using the Kolmogorov-Smirnov test

Table 2. Kolmogorov-Smirnov Normality Test Results				
Kolmogorov-Smirnov Normality Test				
Variable	N	Sig	Criteria	
<i>Motor Ability</i>	20	0.191	Normal	
Basic Football Technical Skills	20	0.191	Normal	

Referring to the Kolmogorov-Smirnov Test testing criteria as follows.

- If the significance obtained is below 0.05, it means that the data tested is different from the standard normal data, which means the data is not normal.
- If significance above 0.05 is obtained, it means that there is no difference between the tested data and standard normal data, which means the data is normal.

Based on the results of the normality test in the table above, it is known that the significance value is $0.191 > 0.05$, which means that all variables are normally distributed.

2. Linearity test

The linearity test aims to determine whether there is a linear relationship between the independent variable (motor ability) and the dependent variable (basic technical skills for playing football).

Table 3. Linearity Test Results			
Linearity Test			
Variable	F	Sig	Criteria
Motor Ability – Basic Football Technical Skills	11,433	0.083	Linear

The basis for decision making in the linearity test is:

- If the probability value is > 0.05 then the relationship between variables (X) and (Y) is linear.
- If the probability value is < 0.05 then the relationship between variables (X) and (Y) is not linear.

Based on the results of the linearity test in the table above, it is concluded that the variable has a significance value of deviation from linearity of $0.083 > 0.05$, which means there is a linear relationship between the independent variable (motor ability) and the dependent variable (basic technical skills for playing football).

3. Pearson Bivariate Product Moment Correlation Test

Pearson product moment bivariate correlation test to determine whether the relationship between the independent variable (motor ability) and the dependent variable (basic technical skills for playing football) is strong or not.

Table 4. Results of the Biivariate Product Moment Pearson Correlation Test

Pearson Correlation Test	Bivariate Product Moment	Correlation coefficient	Sig	N	Criteria
The Relationship between Motor Ability and Basic Football Technical Skills	0.994	0,000	20	Correlated and significant	

The basis for decision making in the correlation test is:

- If the significance value is < 0.05 , then it is correlated
- If the significance value is > 0.05 , then it is not correlated

Guidelines for the degree of relationship, namely:

- Person correlation value 0.00 to 0.20 = no correlation
- Person correlation value 0.21 to 0.40 = weak correlation
- Person correlation value 0.41 to 0.60 = moderate correlation
- Person correlation value 0.61 to 0.80 = strong correlation
- Person correlation value 0.81 to 1.00 = perfect correlation

Based on the results of the correlation test in the table above, it is known that the two variables have a significance value of $0.000 < 0.05$ and a correlation coefficient of 0.994. Based on the degree of relationship guidelines, it can be concluded that the independent variable (motor ability) and the dependent variable (basic technical skills for playing football) have a significant relationship.

4. CONCLUSION

Based on the data from the research conducted, it was followed up with a normality test with a significance value of $0.191 > 0.05$ (all variables have a normal distribution), a linearity test with a significance value of deviation from linearity of $0.083 > 0.05$ (there is a linear relationship between the independent variables and dependent variable) and correlation test with a significance value of $0.000 < 0.05$ (correlated) and a correlation coefficient of 0.994 (perfect correlation). Based on these results, it can be concluded that the independent variable (motor ability) and the dependent variable (basic technical skills for playing football) have a significant relationship.

AUTHOR'S STATEMENT

In this research, the researcher has never published in other scientific journals/publications and there is no element of plagiarism. The author wrote this article in good health and without any interference or pressure from other parties

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