RELATIONSHIP BETWEEN SPEED WITH DRIBBLING SKILLS ON THE STUDENTS OF PHYSICAL EDUCATION DEPARTMENT IN PLAYING FOOTBALL AT UNIVERSITAS MUSAMUS

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ABSTRACT

The problems of this study: whether there is a relationship between speeds with dribbling skills on the students of physical education department, Universitas Musamus in playing football. The purpose of this study was to determine the relationship between speed and dribbling skills on the students of physical education department. This study was used 102 students as population with a sample of 25 students. This study is a survey method which utilizes test and measurement techniques. Correlation analysis results obtained are $r \text{ count } 0.975 > r \text{ table } 0.396$. This research shows that there is a very significant relationship between speed and dribbling skills on the students of physical education department, Universitas Musamus in playing football.

Keywords: speed, skill, dribbling.

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1. INTRODUCTION

The department of physical education which is held by Universitas Musamus studies various sports, and football is one them. There are basic techniques that must be mastered in playing football, such as; 1) Shooting techniques, 2) Passing techniques, 3) Heading techniques, 4) Controlling techniques, and 5) Dribbling techniques. Dribbling is a technique used by a player when bringing the ball toward the opponent's goal. (Kuswoyo, 2018). In addition, good and

maximum dribbling should be achieved through excellent physical condition (speed and agility).

The purpose of this study was to determine the relationship between speed and dribbling skills in playing football on the students of physical education department, Universitas Musamus.

2. METHODOLOGY

This study has an experimental research through quantitative approach. In order to get results, quantitative research is relating to the variables which quantified and analyzed. Answering questions, it is using specific statistical techniques which utilizes and analysis of numerical data (Apuke, 2017; Mangkoedihardjo, 2006, 2010; Waremra and Betaubun, 2018; Pratama et al., 2019).

2.1. Population

The population of this study is the students of physical education department, Universitas Musamus totally 102 students which is consist of 1st and 3rd semesters.

It can be seen in table 1 as follows:

Table 1. Research population

No	Semester/Class	Students (male)
1.	1/A	22
2.	1/B	20
3.	1/C	22
4.	3/A	20
5.	3/B	18
Total		102

2.2. Sample

Sample has a rule to present the data of the study and there were 25% of students population as sample. Suharsimi (2010) stated that if the subject is less than 100 people should all be taken, if the subject is large or more than 100 people can be taken 10-15% or 20-25% or more as the representative can be seen in Table 2 below.

Table 2. Research sample

No	Semester/Class	Population	Sample	Research sample
1.	1/A	22	25%	5
2.	1/B	20		5
3.	1/C	22		5
4.	3/D	20		5
5.	3/E	20		5
Total				Students

2.3. Data Analysis

Data were collected at each stage of this study were obtained in the form of quantitative data. Then the data is analyzed quantitatively to determine the tendency of the data regarding the relationship of the treatment of the sample. By utilizing the product moment correlation formula, it can be formulated as follows:

$$r_{xy} = \frac{n \sum xy - (\sum x)(\sum y)}{\sqrt{[n(\sum x^2) - (\sum x)^2][n(\sum y^2) - (\sum y)^2]}}$$

Where:

r_{xy} = The correlation coefficient between the variables x and y variables

$\sum xy$ = The number of multiplications between variables x and y

$\sum x^2$ = The number of the squares of x values

$\sum y^2$ = The number of the squares of y values

$(\sum x)^2$ = Total value of x squared

$(\sum y)^2$ = Total value of y squared

3. RESULTS AND DISCUSSION

3.1. Result

The following data are the results of student speed measurements in dribbling.

Table 3. Calculation of the relationship of speed (x) with dribbling skills (y).

No	x	y	x ²	y ²	xy
1.	6.91	12.03	47.7481	144.7209	83.1273
2.	7.18	14.05	51.5524	197.4025	100.879
3.	7.97	12.89	63.5209	166.1521	102.7333
4.	7.22	14.19	52.1284	201.3561	102.4518
5.	10.5	21.34	110.25	455.3956	224.07
6.	8	19	64	361	152
7.	7.97	14.1	63.5209	198.81	112.377
8.	7.88	13.03	62.0944	169.7809	102.6764
9.	6.44	11.72	41.4736	137.3584	75.4768
10.	7.56	16.47	57.1536	271.1609	124.5132
11.	8.59	17.1	73.7881	292.41	146.889
12.	8	21.9	64	479.61	175.2
13.	7.19	19.88	51.6961	395.2144	142.9372
14.	7.53	18.66	56.7009	348.1956	140.5098
15.	8.97	17.16	80.4609	294.4656	153.9252
16.	7.9	15.87	62.41	251.8569	125.373
17.	7.97	19.59	63.5209	383.7681	156.1323
18.	8.37	24.62	70.0569	606.1444	206.0694
19.	8.16	15.78	66.5856	249.0084	128.7648
20.	8.12	17.28	65.9344	298.5984	140.3136
21.	7.75	14.81	60.0625	219.3361	114.7775
22.	62.05	63.61	3850.2025	4046.2321	3947.0005
23.	58.8	57.77	3457.44	3337.3729	3396.876
24.	49.28	61.13	2428.5184	3736.8769	3012.4864
25.	58.31	57.37	3400.0561	3291.3169	3345.2447
Total	394.62	591.35	14464.8756	20533.6441	16512.8042

$$\begin{aligned}
 r_{xy} &= \frac{n \sum xy - (\sum x)(\sum y)}{\sqrt{[n(\sum x^2) - (\sum x)^2][n(\sum y^2) - (\sum y)^2]}} \\
 &= \frac{412820.1 - (394.62)(591.35)}{\sqrt{[361621.89 - 155724.94][513341.1 - (349694.82)]}} \\
 r_{xy} &= 0.9776
 \end{aligned}$$

From the analysis of the data which using analytical techniques r_{xy} , it has acquired r_{xy} count calculated at 0.9776, while the value of the r (table) 0.396 with significance level of 5% and the value of $N = 25$. $r \text{ count} > r \text{ table}$, it means there is a significant correlation between the speed with dribbling skills on the students of physical education department, Universitas Musamus.

3.2. Discussion

Based on the results of the study showed that there is a significant relationship between speed with the results of dribbling in soccer. This can be proven through the results of the analysis of correlation test data where the value of r count is $0.9776 > r \text{ table } 0.396$. The research results show the speed greatly contribute positively to the player's ability to dribble.

4. CONCLUSION

Based on the analysis of data to answer the research hypothesis put forward the obtained value of r count $r_{xy} 0.9776$ based on significance level of 5%, and $N = 25$, with a value of r table 0.396 and the value of each variable consists of; $\sum xy = 16512.8042$, $\sum x = 394.62$, $\sum y = 591.35$, $\sum x^2 = 14464.8756$, $\sum y^2 = 20533.6441$. Thus, the null hypothesis is rejected and the alternative hypothesis is accepted. From the explanation above, there is a significant relationship between speed and dribbling skills on the students of physical education department, Universitas Musamus in playing football.

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