

# Contribution of Eye and Leg Coordination to Sepak Sila Skill in the Sepak Takraw Game in Extracurricular Students Activities

Alwin Saputra

Faculty of Sports Sciences, Universitas Islam Riau, Pekanbaru, Riau, Indonesia

\*Corresponding author: Email, [sepriadi@fik.unp.ac.id](mailto:sepriadi@fik.unp.ac.id)

## ABSTRACT

Based on observations, found the phenomenon, among others there are students who do sepak takraw (kick volley rattan ball) but the leg cannot touch the ball properly. This is due to the weak coordination of eye and foot coordination of students in doing *sepak sila*. Furthermore the ball of *sepak sila* is not well controlled, this is due to the lack of leg muscle strength of the students so the ball is kicked not on the right timing. Then also found the ball of *sepak sila* is not kicked hard enough so that the ball does not soar high enough, this happens because the power of the muscles of the leg muscles of the less trained students resulting in slow kicking speed. Further found also after doing *sepak sila*, students cannot move quickly to another direction. This is because the muscle flexibility of his legs are not good enough. This type of research is a correlational research. Correlation is a statistical tool that can be used to compare the measurement results of two different variables in order to determine the level of relationship between these variables. Population in this research is extracurricular students sepak takraw SMK Terpadu Ismailyah District Rambah Hilir Rokan Hulu District with a total population of 18 students. Thus the number of samples in this study were 18 students. Based on the results of research that has been done then it can be concluded that there is a contribution of eye and leg coordination on sepak sila skills in the game sepak takraw on students extracurricular SMK Terpadu Ismailyah Rambah Hilir District Rokan Hulu of 0.489 or in the category is medium.

**Keywords:** Eye and Leg coordination, Sepak Sila, Sepak Takraw

## 1. INTRODUCTION

The results of observations in this study, which were carried out on Ismailyah Integrated Vocational School students in Rambah Hilir District, Rokan Hulu Regency, were found among other phenomena where there were students who did sila but their feet could not touch the ball properly. This is due to the weak coordination of the eyes and feet coordination of students in doing precepts. Furthermore, the soccer ball is not controlled properly, this is due to the lack of strength in the leg muscles of the students so that the ball is kicked at the wrong timings. later it was also found that the soccer ball was not kicked hard enough so that the ball did not bounce high enough, this was due to the explosive power of the poorly trained leg muscles of the student resulting in slow kick speed. Furthermore, it was also found that after doing sila, students could not move quickly in the other direction. This is because the flexibility of the leg muscles is not good enough.

## 2. METHODS

This type of research is correlational research. In Arikunto (2006: 270) says that correlation is a statistical tool that can be used to compare the results of measurements of two different variables in order to determine the level of relationship between these variables[1]. In this case as the independent variable (X) is the eye and foot coordination, and as the dependent variable (Y) is the precepts skill. In Winarno (2011: 55) [2]

### Data Analysis Techniques

The correlation analysis technique used is the Product moment correlation proposed by Pearson in Sugiyono (2010: 228) [3]. This technique includes parametric statistical techniques that use interval and ratio data with certain requirements. For example, data are chosen randomly (random) and the data are normally distributed, the data linked is linear patterned and the data connected has the same pair.

Pearson formula:

$$r_{xy} = \frac{n \sum X_i Y_i - (\sum X_i)(\sum Y_i)}{\sqrt{\{n \sum X_i^2 - (\sum X_i)^2\} \{n \sum Y_i^2 - (\sum Y_i)^2\}}}$$

Information:

- $r_{xy}$  = Product moment correlation number "r"  
 $n$  = Sample  
 $\sum XY$  = The number of multiplications between the X score and the Y score  
 $\sum X$  = The sum of all X scores  
 $\sum Y$  = The sum of all Y scores

To see the amount of contribution made by eye and foot coordination to the skills of sila in extracurricular students of Ismailyah Integrated Vocational School, Rambah Hilir District, Rokan Hulu Regency, namely the coefficient of determination with the formula:

$$KD = r^2 \times 100.$$

Information:

- $KD$  = Coefficient of Determination  
 $r^2$  = The magnitude of the correlation value (rxy value)

In the final step of data processing is to test the significance of the correlation coefficient (significance level) using the formula:

$$t = \frac{r \sqrt{n-2}}{\sqrt{1-r^2}}$$

Information:

- $t$  = t value is sought  
 $r^2$  = correlation coefficient  
 $n$  = lots of data

Furthermore t arithmetic compared with the value of t table with dk  $n - 2$  at the level or level of confidence chosen, in this case is 95%. If  $t_{\text{arithmetic}} > t_{\text{table}}$ , it can be concluded that the hypothesis is accepted. Size or norm to see how much the relationship is guided by the following:

- Less than 0.00-0.199 : Very low  
 Among 0.20-0.399 : Low  
 Among 0.40-0.599 : Is  
 Among 0.60-0.799 : Strong  
 Among 0.80-1.000 : Very strong

### 3. RESULT AND DISCUSSION RESULTS

The results of this study resulted in the data of eye and foot coordination and data on the skills of soccer in the game of sepak takraw in extracurricular students of Ismailyah Integrated Vocational School, Rambah Hilir District, Rokan Hulu Regency. Data

obtained directly by providing tests to research samples that have been determined. Furthermore, the data is processed and given a description of each part, namely in the eye and foot coordination section and in the sepak takraw sila soccer skills section.

#### A. Data Description

1. The Frequency Distribution of Eye and Foot Coordination of Ismailyah Vocational School Extracurricular Integrated Vocational District, Rokan Hulu District. The test that was given to collect the eye and foot coordination data of the Ismailyah Integrated Vocational School Extracurricular Vocational School Students in Rambah Hilir District Rokan Hulu Regency was to provide an eye and foot coordination test. The implementation of the test on the sample begins with giving the signal to start bouncing the ball up then the sample tries to kick the ball into the designated area, then the bounce ball is received by using the foot and rocking once. If the test is successful, then the sample is given a score of one. After eye and foot coordination data is collected then the data is processed using the help of Microsoft Office Excel program, which is to determine the frequency distribution, standard deviation, mean, mode, median, maximum value, minimum value, and to determine the frequency distribution table.

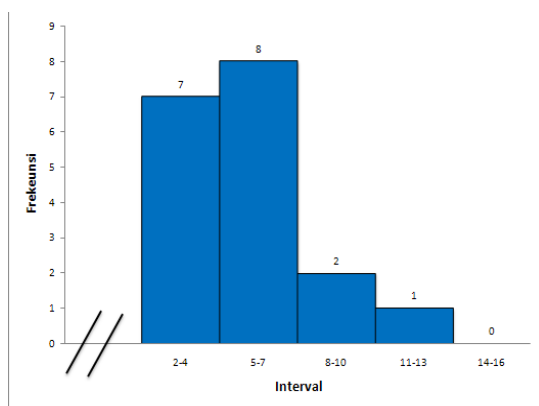
From the results of data processing, it can be explained through the frequency distribution table obtained in the first class in intervals 2-4 with a frequency of 7 people or with a percentage of 38.89%. In the second class, it can be 5-7 intervals with a frequency of 8 people or with a percentage of 44.44%. In the third class the interval can be 8-10 with a frequency of 2 people or with a percentage of 11.11%. In the fourth class there was an interval of 11-13 with a frequency of 1 person or with a percentage of 5.56%. In the fifth class the interval can be 14-16 with no frequency. For more details about the results of these processing can be seen in the following table.

Table 1. Frequency Distribution of Eye and Foot Coordination Test Results for SMK Ismailyah Integrated Extracurricular

No	Interval	Frequency	Percentage
1	2-4	7	38,9%
2	5-7	8	44,4%
3	8-10	2	11,1%
4	11-13	1	5,6%
5	14-16	0	0,0%
Amount		18	100%

Research Data 2017

From table 1 above it can be explained that the results of the eye and foot coordination test for extracurricular students of Ismailyah Integrated Vocational School, Rambah Hilir District, the highest Rokan Hulu Regency are 12 and the lowest is 2. Mean (average) of 5.5 Median (middle value) is 9 with mode (the value that often appears) is 6. The standard deviation (Standard Deviation) is 2.5. The data contained in table 4 is also illustrated in the form of the following histogram graph:



Graph 1. Histogram Results of Eye and Foot Coordination Test of Ismailyah Integrated Vocational School Extracurricular Students in Rambah Hilir District, Rokan Hulu Regency.

1. Frequency Distribution of Sila Soccer Skills in Sepaktakraw Games on Ismailyah Vocational School Extracurricular Integrated Students in Rambah Hilir District, Rokan Hulu Regency.

The test that was given to collect data on sila skills in the sepaktakraw game on extracurricular students of Ismailyah Integrated Vocational School in Rambah Hilir Subdistrict, Rokan Hulu Regency was by giving sepaktakraw sila soccer skills test. The field used to conduct the test is free and not restricted. The implementation of the test is to provide the opportunity for the research sample to conduct sila in as many sepaktakraw games within 1 minute. After the sila soccer skill data in the sepaktakraw game is collected then the data is processed using the help of Microsoft Office Excel program, which is to determine the standard deviation, mean, mode, median, maximum value, minimum value, and to determine the frequency distribution table.

From the results of data processing it can be explained through the frequency distribution table obtained the number of classes as many as five classes and with intervals of three. In the first class, there are 3-6 intervals with a frequency of 2 people or a percentage of 11.11%. In the second class the interval can be 7-10

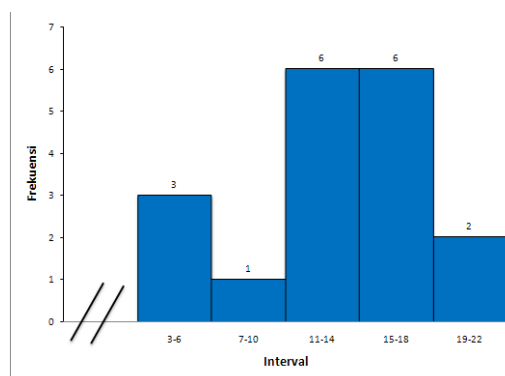
with a frequency of 1 person or with a percentage of 5.56%. In the third class the intervals can be 11-14 with a frequency of 6 people or with a percentage of 33.33%. In the fourth class the interval can be 15-18 with a frequency of 6 people or with a percentage of 33.33%. In the fifth class the interval can be 19-22 with a frequency of 2 people or with a percentage of 11.11%. For more details about the results of these processing can be seen in the following table:

Table 2. Frequency Distribution of the Result of Sila Skill Test Results in Sepaktakraw Games for Ismailyah Integrated Vocational School Students in Rambah Hilir District, Rokan Hulu District

No	Interval	Frequency	Percentage
1	3-6	3	16,7%
2	7-10	1	5,6%
3	11-14	6	33,3%
4	15-18	6	33,3%
5	19-22	2	11,1%
Amount		18	100%

#### Research Data 2017

From table 2 above it can be explained that the results of the sila skills test in sepaktakraw games on extracurricular students of Ismailyah Integrated Vocational School in Rambah Hilir Subdistrict The highest Rokan Hulu Regency is 19 and the lowest is 3. Mean (average) of 13.17. The median (middle value) is 11 with mode (the value that often appears) 13.8. The standard deviation (standard deviation) is 4.9. The data contained in table 2 is also illustrated in the form of the following histogram graph:



Graph 2. Histogram of Sila Soccer Skill Test Results in Sepaktakraw Games for Ismailyah Integrated Vocational School Extracurricular Students in Rambah Hilir District, Rokan Hulu Regency.

### Data analysis

From the calculation results it can be seen that the value of the contribution given by eye and foot coordination towards the football skills in the sepaktakraw game for extracurricular students of Ismailyah Integrated Vocational School, Rambah Hilir District, Rokan Hulu Regency is 0.489. After the correlation figures are obtained, then the hypothesis testing is done whether there is a contribution of eye and foot coordination to the skills of sila in the sepaktakraw game on extracurricular students of Ismailyah Integrated Vocational School, Rambah Hilir District, Rokan Hulu Regency with a testing rule that refers to Sugiyono's opinion (2010: 221) which states that that "the stipulation if  $r_{count}$  is greater than  $r_{table}$  ( $r_{count} > r_{table}$ ) then Hypothesis is accepted, but on the contrary if  $r_{count}$  is smaller than  $r_{table}$  ( $r_{count} < r_{table}$ ) then Hypothesis is rejected[4].

Furthermore it was found that  $r_{count} = 0.489$  then when seen in  $r_{table}$  with the provisions at a significant level of 5% found  $r_{table} = 0.468$ . Thus,  $r_{count} > r_{table}$  or  $0.489 > 0.468$ . This shows that there is a relationship between variable X to variable Y or in other words there is the contribution of eye and foot coordination to the skills of sila in sepaktakraw games on extracurricular students of Ismailyah Integrated Vocational School, Rambah Hilir District, Rokan Hulu District with a correlation value of 0.489 at the level of " is ".

Furthermore  $t$  arithmetic compared with the value of  $t_{table}$  with the provisions of  $dk = n - 2$  at the level or level of confidence chosen, in this case is 95%. If  $t_{arithmetic} > t_{table}$ , it can be concluded that the hypothesis is accepted. So  $t_{count} = 2.224$  while  $t_{table} = 1.746$  shows that the correlation given is significant.

Meanwhile, to find the criteria for the contribution of eye and foot coordination to the skills of sila in sepaktakraw games on extracurricular students of Ismailyah Integrated Vocational School in Rambah Hilir District, Rokan Hulu Regency using the formula:  $KD = r^2 \times 100\%$ . Where  $r$  is the correlation number, 0.489. This means that the amount of contribution made by eye and foot coordination to the skills of sila in sepaktakraw games is 23.9%.

### Discussion

From the analysis of the data previously stated, it is known that there is a contribution of eye and foot coordination to the skills of sila in the sepaktakraw game on extracurricular students of Ismailyah Integrated Vocational School, Rambah Hilir District, Rokan Hulu District. In the research results it is also known that the correlation value is only at the level of "moderate" with a correlation value of 0.489 or eye and foot coordination

only contributes 23.9%. Therefore, it is not only eye and foot coordination that can affect one's skills in doing precepts. There are still 76.1% more factors that can also influence one's skills in doing the precepts such as leg muscle strength, ankle flexing, mastery of techniques in holding the weight of the ball received and the ability to direct the ball towards the chill.

This is because strength is a very important component in improving one's overall physical condition. Then strength is the strength of muscle contraction that is achieved in one maximum effort. This maximum effort is made by a muscle or a group of muscles to overcome a prisoner. From this understanding indicates that the better the strength of a student's leg muscles, the ability of a student to do sepaktakraw is also getting better and will be far more perfect if supported by factors of flexibility or flexibility.

Although many sports activities require more agility, strength, speed, explosive power and so on, these factors are still combined with flexibility or flexibility to get good results. Also mentions flexibility as a component of physical fitness, an ability to move the body or its parts as broadly as possible without joint tension and muscle injury.

From the results of the research that has been carried out it is known that the skills in doing sila are greatly influenced by the mastery of technical factors in directing the ball. Mastery of the technique here will make it easier for students to do the movement for sepaktakraw sports.

### 4. CONCLUSION

Based on the results of the research that has been done, it can be concluded that there is a contribution of eye and foot coordination to the skills of sila in sepaktakraw games on extracurricular students of Ismailyah Integrated Vocational School, Rambah Hilir District, Rokan Hulu Regency with  $r_{count} = 0.489$  then if seen in  $r_{table}$  with provisions at the level of a significant 5% was found  $r_{table} = 0.468$ . Thus  $r_{count} > r_{table}$  or  $0.489 > 0.468$ , then  $t_{count} = 2.224$  while  $t_{table} = 1.746$  shows that the correlation given is significant. With a contribution of 0.489 and included in the medium category. So the amount of contribution given is 23.9%.

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