



**THE RELATIONSHIP BETWEEN EYE - FOOT COORDINATION,  
AGILITY AND SPEED WITH BALL DRIBBLING SKILLS  
IN COACHING EDUCATION DEPARTMENT  
STUDENTS OF FIK UNIMA**

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**ABSTRACT**

In this study, what is meant by population is all male students of the Department of Coaching Education, FIK UNIMA, semester IV (4 classes), totaling 103 students. The research sample is a portion of the population taken as a representative source of all population data. In determining the research sample, researchers used a selective sampling approach, by students who can play football. To make it easier, the researchers limited the sample size to 30 students (soccer players). In this study the data collection using the measurement method, namely: To measure ankle coordination using a soccer wall volley. The reliability value is 0.61 and the validity is assumed with *face validity*, To measure agility with the "zigzag running test" reliability level of 0.93 and validity of 0.. To measure speed with the "30 meter running speed test". To measure dribbling skills with the "Dribbling test" with a reliability of 0.99 and a validity of 0.92. Research conclusions Based on data analysis and discussion, it can be concluded that there is a significant relationship between eye-foot coordination, agility and speed on the ability to dribble in the fourth semester students of the FIK UNIMA Coaching Education Department.

**Keywords:** Eye-foot coordination, Agility and Speed, Dribbling kills.

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## 1. INTRODUCTION

Football is a sport that is very popular with all levels of society in Indonesia, both in cities and in villages. Even now football is favored and played by women. In promoting sports and exercising the community, football is one of the prioritized sports to be fostered, so to improve and achieve achievements, it would be nice if from an early age you have received sports education and especially football in a correct, orderly and directed manner. Today, the game of football is not just entertainment or leisure time, but it is required to achieve the highest.

Realizing this need, various efforts have been and are being carried out in order to achieve the desired achievements, including creating or growing football clubs at an early age, or football schools which are now known as Lembaga Pendidikan Sepakbola (LPSB), which aims to introduce various techniques, tactics in the game of football from an early age, given that the abilities of children are different from adults, **Soekatamsi (1988)** argues that, "because children are still experiencing physical growth and spiritual development, there is a need for age grouping". This division of age groups is important so that each group is a self-study team or a training team alone, and also influences the determination of the training load (intensity).

Physical and technical training is a basic training program in football training. In this case **Muchtar (1992)** argues that, "apart from technical proficiency, physical quality which consists of various elements is an absolute requirement in football". This means that physical and technical abilities are interrelated and inseparable components in the game of football. So far, the physical and technical abilities have been maximally trained and improved. The components of the physical conditions that support the mastery of basic football techniques are trained systematically and continuously. In the game of football, when observed, dribbling is a movement that is often done by football players, so that these players stand out. According to **Sarumpaet (1992)** states that "dribbling is a technique in an effort to move the ball from one area to another during the game. While the objectives of dribbling are: 1) to move the game, 2) to get past the opponent, 3) to lure the opponent, 4) to slow down the game".

According to **Sajoto (1988)** "In addition to mastering the correct basic techniques, a football player must also have a good physical condition, the components of physical conditions that are needed include: strength, endurance, explosive power, accuracy, flexibility, balance, coordination, agility, accuracy and reaction". So dribbling does not only bring the ball along the ground and straight ahead but faces an opponent who is quite close and tight.

Agility is the ability to change direction and position according to the situation at hand quickly, precisely as the body moves from one place to another. Agility relates to reaction time after an action from outside or from within a person so that it will get good results and in accordance with one's expectations. With the agility possessed, it allows a player to be able to make movements in changing directions according to the situation at hand effectively and efficiently. The game of football requires agility to move suddenly which aims to outwit opponents either with the ball or without the ball.

Another very important element of physical condition is speed. Physiologically according to **Jonath and Krempel in Harsono (1988)**, speed can be interpreted as; "Ability based on flexibility (flexibility), nervous system processes and muscle tools to perform movements in a certain unit of time." Meanwhile, according to **Syafuruddin (1992)** physically, speed can be interpreted as: Distance divided by time, and the result of the influence of force on a moving body where strength can accelerate body movements. This is an interesting phenomenon to study, is it true that students have good eye-foot coordination, good agility, running speed, and good

dribbling skills too. Therefore, the authors took a study entitled "The relationship between eye-foot coordination, agility and speed with dribbling skills in Semester IV FIK UNIMA students.

This study aims to determine whether there is a relationship between eye-foot coordination and dribbling skills, whether there is a relationship between agility and dribbling skills, whether there is a relationship between speed and dribbling skills and whether there is a relationship between eye-foot coordination and agility and speed together with dribbling skills.

## 2. METHODOLOGY

The research method used is a survey method using correlational techniques. According to **Sugiyono (2009)** the survey method is used to obtain data from certain natural (not artificial) places, but researchers treat data collection by distributing questionnaires, tests, structured and planned interviews and so on. To obtain data in this study, researchers conducted tests or measurements on the variables studied.

The correlation technique in question is to see the pattern of the relationship between one variable and another.

**Rianto (1996)** explains that "correlational research is research that looks at the relationship between variables or other variables". In this study the research used a quantitative approach.

The measurement site to obtain the data needed for problem solving was held at the UNIMA Stadium. The time needed for the implementation of this research, starting from the preparation, data collection, data processing and analysis to the preparation of a report on the implementation of this research, was for three months.

In this study, what is meant by population is all male students of the Department of Coaching Education, FIK UNIMA semester II (4 classes) and semester IV (4 classes), totaling 103 students.

1. To measure eye coordination using a soccer wall volley. The reliability value is 0.61 and the validity is assumed with face validity
2. To measure agility with the "sig-zag running test" reliability level of 0.93 and validity of 0.82.
3. To measure speed with the "40 meter running speed test" (**Lubis & Wardoyo, 2014**).
4. To measure the skill of dribbling with the "Dribbling test" with a reliability of 0.99 and a validity of 0.92 (**Nurhasan, 2007**).

The analysis technique to test the hypothesis uses "Product Moment Correlation Analysis" (**Husaini 2001**). To start the hypothesis testing, it is preceded by a number of test analysis requirements to determine the feasibility of the data, namely the normality test and linearity test.

## 3. RESULTS

### 1.1 . Normality Test

The calculation of the data normality test is intended to determine whether the variables in the study have the distribution of data used to come from a normal distribution or not. In this study, to test the normality of the data used a technique using SPSS Statistics 21 with the Kolmogorov-Smirnov formula.

**TABLE 1  
NORMALITY TEST**

Correlation	Significance Level (p)	Information
X <sub>1</sub> With Y	0,283	Normal Distribution
X <sub>2</sub> With Y	0,136	Normal Distribution
X <sub>3</sub> dengan Y	0,839	Normal Distribution

Based on the results of the normality test, it can be seen that the data from all variables have a p value (Sig.)> 0.05, so all variables are normally distributed and the analysis can be continued.

### 3.2. Linearity Test

Linearity test is used to determine whether the relationship between the independent variable and the dependent variable is linear (the relationship graph forms a straight line). Linearity testing can be done using the help of SPSS Statistics 21.

**TABLE 2  
LINEARITY TEST**

Correlation	FCount	Significance (p)	Information
X <sub>1</sub> dengan Y	1,328	0,519	Linier
X <sub>2</sub> dengan Y	1,390	0,504	Linier
X <sub>3</sub> dengan Y	1,328	0,519	Linear

Based on the results of the linearity test, it can be strengthened by the value of p (Sig.)> 0.05 so that all variables X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub> have a linear relationship with Y. Thus, all prerequisite analyzes are met and can be continued.

### 3.3. Hypothesis Test

**TABLE 3  
HYPOTHESIS TESTING WITH MULTIPLE REGRESSION**

Fregression	Significance (p)	Contribution Regression	Equation
7,069	0,001	Y = 341,753+7,612 X <sub>1</sub> +0,778 X <sub>2</sub> +0,445 X <sub>3</sub>	44,9%

Based on the table, the significance of 0.03 <0.05, so that H<sub>0</sub> is rejected and H<sub>a</sub> is accepted. This means that the three independent variables (eye-foot coordination, agility and speed) together have a significant relationship with the ability to dribble. The regression equation formed is  $Y = 341,753 + 7,612 X_1 + 0,778 X_2 + 0,445 X_3$ . The correlation coefficient between the Y criterion and the three predictors (X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub>) is 0.670. The significance or significance of multiple correlation coefficients is carried out using the F price. From the multiple correlation analysis, it is obtained that Fcount is 7.069, then Ftable is consulted. It turns out that the price of Fcount>Ftable, meaning that the double correlation is significant. The coefficient of determination (R<sup>2</sup>) in the multiple regression analysis of the three predictors is 0.449. That is, it has a 44.9% relationship with the ability to dribble and 55.1% is influenced by other factors not examined.

## 4. DISCUSSION

The results of the research that have been done show that students who have good coordination can dribble well and smoothly, but on the other hand, poor ankle coordination also

affects the ability to dribble the ball not smoothly. Students who have good agility can dribble well and smoothly, but on the other hand, bad agility also affects the ability to dribble the ball to be not smooth and the lack of agility will have an impact on dribbling speed. Students who have good agility can dribble well and smoothly, but on the other hand, bad agility also affects the ability to dribble the ball to be not smooth and the lack of agility will have an impact on dribbling speed. The coefficient of determination in the multiple regression analysis is 44.9% with the ability to dribble and 55.1% is influenced by other factors that are not examined, such as field conditions, training intensity, flexibility, endurance, balance. Thus the results of this study also show that agility is important to be owned and improved by every student to improve the ability to dribble the fourth semester students of the FIK UNIMA Coaching Education Department.

## 5. CONCLUSION

There is a significant relationship between eye-foot coordination, agility, speed and the ability to dribble the fourth semester students of the FIK UNIMA Coaching Education Department.

## 6. RECOMMENDATIONS

From the results of this study, those who provide course material should pay attention to other factors besides eye-foot coordination, agility and speed and for the next researcher, it is hoped that they can conduct research on the ability to dribble by considering other factors besides ankle coordination and endurance.

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