Relationship Between Speed and Agility and Dribbling Skills in Football Games in Students of SMK Negeri 1 Modoinding

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Abstract. According "to the researcher's observations, the abilities, and skills of the football players of SMK Negeri 1 Modoinding have not yet perfectly mastered the basic techniques in the game of football. One of the basic techniques that has not been maximally mastered by players is the technique of dribbling. Many players lose the ball in games, training and in matches because the ball received is not fully controlled by the player. The method used in this research is the descriptive method with correlation technique. The population in this study was 29 people, with a sample of 20 people. Based on the results of the analysis, which states that there is a positive and significant relationship between speed variable (X1), the agility variable (X2) and dribbling skills in soccer games (Y) in students of SMK Negeri 1 Modoinding. To test and analyze the relationship between speed (X1) and agility (X2) together with dribbling skills in soccer games (Y) to students of SMK Negeri 1 Modoinding. The calculation results obtained rx1x2y observations of robservation = 0.919 when compared with r table (n,(20); a = 0.05) obtained by rtab = 0.444. From these results it shows that the value of robservation = 0.919 > rtab value = 0.444 mi means that Ho is rejected and Ha is accepted which states that there is a positive and significant relationship between speed (X1) and agility (X2) together with ball rolling skills in soccer games (Y) for students of SMK Negeri 1 Modoinding. These results have been strengthened by the results of the multiple correlation coefficient of Ry1,2 0.919 with a determination coefficient of R Square = 0.844 this means that the contribution or the contribution of speed and agility together in dribbling skills is 84.40%. Furthermore, the remaining 15.60% is determined by other variables that are not explained one by one or are not discussed in this study. Based on the results of the study, there is a positive and significant relationship between of speed and agility with dribbling skills in soccer games for students of SMK Negeri 1 Modoinding.

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1 Introduction

Football is a type of game that relies on teamwork. Therefore, this cooperation is a need for a football game that must be fulfilled by every team who wants to win. Victory in

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the game of football will only be achieved through the cooperation of the team. Victory cannot be achieved individually in team play. However, to create a team, the individual skill factor is more important to create good teamwork. Besides that, even though the players have good skills and the team has good cooperation, if it is not supported by optimal physical conditions, the basic technical abilities possessed by each player will not develop.

Good physical condition and good technical mastery can make a big enough contribution to having soccer skills. Without being supported by mastery of playing techniques, good tactics, and a good mentality, the achievements to be achieved cannot be balanced. Similarly, having a bad condition but good technique, tactics, and mentality is less supportive of achievement.

To be able to excel in sports, in addition to having talent, a player is required to master basic techniques in the game of football because mastery of basic techniques is the main requirement to become a quality player and have high skills in the game of football. This is stated by Jef Sneyers that: "In the sport of football, the factor that really determines the success of a team is the mastery of basic techniques." The basic techniques in the game of football are as follows: 3) receiving the ball, 3) heading the ball, 4) dribbling, 5) cheating with the ball, 6) seizing the ball, 7) throwing the ball, 8) goalkeeper technique."

According to the researcher's observations, the abilities and skills of the football players of SMK Negeri 1 Modoinding have not perfectly mastered the basic techniques in the game of football. One of the basic techniques that have not been maximally mastered by players is the technique of dribbling. Many players lose the ball in games, training and in matches because the ball received is not fully controlled by the player. The actual ball can be dribbled to be closer to the target because it does not have the dribbling skills because the ball is hastily kicked directly to a friend so that it is captured and can be controlled by the opponent. According to Danny Mielke, "When you start preparing for a match, the main skill that will make you feel motivated and satisfied is the ability to dribble".

The goal of the game of football, according to Eric.C. Batty, is: "To score as many goals as possible against the opponent's goal." Thus, all players must be able to take individual action because it is not only the attacking players who have to attack but the midfielders and defenders also need to be skilled at taking individual actions to attack the opponent's defence area, because in modern football games, defenders also have duties and responsibilities to participate in carrying out the attack.

This is the opinion of Richard Widdows and Paul Buckle that: "Every defender must also be able to play an attacking game in an effort to support an attack into the opponent's area, by controlling the ball, dribbling until you have to pass it to a friend and doing a cross kick, but if the attack fails and the ball can be taken by the opponent, then defenders must quickly return to a defensive position."

In his book entitled, "The Ideal Football Player Development Program," Wiel Coerver states that: "In connection with efforts to attack the opponent's defense, individual action must be prioritized." Given the importance of individual action or individual play, dribbling skills need to be trained specifically and continuously so that dribbling skills can improve and develop.

To improve achievement in the game of football, skills need to be mastered by each individual, in addition to teamwork. Mastery of skills can only be realized if the physical condition of the individual supports it. Physical conditions such as endurance, speed, strength, and balance are the elements that affect every football player. Of the components of the physical condition, the components that play the most role in mastering and supporting the ability of a player to have the skill of dribbling are the elements of speed and agility. In addition to the factors mentioned above, Jeff Sneyers added the other most important factor in reaching the peak of achievement in the sport of football is physical condition and technical ability, such as dribbling.

If the above problems are ignored and allowed to continue, it is very possible that the soccer sports achievements of male students at SMK Negeri 1 Modoinding will not materialize. Therefore, it is deemed necessary to raise the issue of the relationship between agility and speed with dribbling skills in state high school students 1 Modoinding.

2 Theoretical Framework

2.1 Dribbling Skills

Dribbling the ball in the game of football is very important for every player. Timo Scheunemann says that having dribbling skills is important, but players should not forget that dribbling is very draining and often slows down the tempo of the game. According to Robert Koger, dribbling is a method of moving the ball from one point to another on the field using the feet.

In dribbling, there are several principles that must be considered, including dribbling near the feet, dribbling with the outside of the front of the foot while the hips are still pointing straight ahead. Players practice changing the direction of the dribble, increasing or decreasing speed in dribbling, and stopping at any time. Ball. Basically, dribbling can be done in three ways, namely dribbling with the inside of the foot, dribbling the ball with the outside of the foot, and dribbling the ball with the back of the foot.

From the limitations given by the experts above, there is no difference in understanding, so it can be taken as an understanding that dribbling is the ability to control the ball with the feet by the player while running to pass the opponent or open the opponent's defense area.

2.2 Speed

One very important element of physical fitness is speed. Physiologically, according to Jonath and Krempel in Harsono, speed can be interpreted as an ability based on flexibility, the process of the nervous system, and muscle tools to perform movements in a certain unit of time. Meanwhile, physically, according to Syafruddin, speed can be interpreted as distance divided by time and is the result of the influence of force on a moving body, where strength can accelerate body movement.

Basically, speed is distinguished by the speed of reaction and the speed of action. Reaction speed is the ability to respond quickly to acoustic, optical, and tactile stimuli. Acoustic stimulation means a stimulus through hearing, while optical stimulation is

a stimulus given through sight, for example, an athlete in action or moving by paying attention to the movement of his coach's hand or the opponent's movement, while tactile stimulation is a stimulus given through the skin, for example by touching the skin.

Speed of action is defined as the ability, with the help of the flexibility of the central nervous system and muscular apparatus, to perform movements in a minimal unit of time. This speed usually occurs in the form of the speed of forward motion and the speed of movement of body parts.

From the descriptions above, all types of speed, both speed of action and speed of reaction, are needed by a football player, especially in dribbling. As an example of the speed of action, the optical stimulation of a player can move quickly because there is a stimulus given through vision. For example, when controlling the ball, a player automatically sees the opponent's movement so that it opens up opportunities for the player to quickly make a decision to take the next action.

2.3 Agility

Agility is one of the physical conditions that are indispensable for all activities that require the speed of changing the position of the body and its parts. In addition, agility is a prerequisite for learning and improving movement skills and sports techniques, especially those that require movement coordination. Furthermore, agility is very important for teams that require high adaptability to changing situations in the match.

Agility is the ability to change body position or the direction of body movement quickly when moving quickly without losing balance or awareness of body position. This agility component includes elements of dodging quickly, changing body position quickly, moving and then stopping and continuing to move quickly. Similar opinion as expressed by Sajoto, that agility is a person's ability to change position in a certain area. Someone who is able to change positions at high speed with good coordination means that his agility is quite good.

3 Research Method

The methods used in this research are: descriptive method with correlation technique. The population is all students of SMK Negeri 1 Modoiding, comprising as many as 29 people, and a sample of 20 people taken randomly. The research design used in this research is product moment correlation and multiple.

3.1 Research Instrument

The research instrument used in this research is

1) To measure speed, the 50-meter sprint test is used.
2) To measure agility used the Shuttle Run Test.
3) To measure dribbling skills, the Dribbling Test is used.

4 Results and Discussion

From the results of measurements on the variables of speed (X1) and agility (X2) with dribbling skills in soccer games (Y) for students of SMK Negeri I Modoinding, the results can be seen in the raw data (appendix table). From the results of these measurements, the data can then be described in the form of a data description with the prices and statistical quantities needed for further analysis, both on the X 1 variable, X 2 variable and Y variable as shown in Table 1.

4.1 Testing Requirements Analysis

Testing the analysis requirements must be met so that the analysis can be carried out, both for prediction purposes and for hypothesis testing purposes. The conditions referred to in the correlation analysis test are the requirements for the normality test and the linearity test.

1) Normality test

The normality test using the One-Sample Komogrov-Smirnov The test method is one of the normality tests used to determine whether the data obtained are normally distributed with a scatter. Speed data (X1), agility data (X2), and dribbling skill data (Y) from soccer games for students at SMK Negeri I Modoinding were analyzed in the normality test. The following is a summary of the results of the normality test, both for X1 (speed), X2 (agility), and Y (dribbling skills), which can be seen in the Table 2.

Table 1. Data recapitulation X1 (speed), X2 (agility), and Y (dribbling skills).

Variable	n	Minimum	Maximum	Mean	Standard Deviation
X 1	20	6.0	12.0	8.75	1,803
X 2	20	37.4	67.9	50,605	9.8857
Y	20	18	27	23.65	2.834
Valid N (Listvise)	20	-	-	-	-

Table 2. Data Normality X1 (speed), X2 (agility), and Y (dribbling skills).

Variabel	n	Kolmog- Smimov Z	Asymp.Sig	Alfa (u)	Conclusion
X1	20	0,721	0,675	0,05	Normal
X2	20	1,170	0,129	0,05	Normal
Y	20	0,891	0,891	0,05	Normal

4.2 Research Hypothesis Testing

The hypothesis testing in this study can be continued after the data has been known to be normally distributed and have a linear relationship. Testing the research hypotheses using a simple correlation test (single) and multiple correlation tests or multiple correlation tests with the help of the SPSS for Windows version 21 computer program.

4.3 Discussion of Research Results

Based on the results of the multiple correlation test analysis, which states that there is a positive and significant relationship between speed (X1) and agility (X2) together with dribbling skills in soccer games (Y) in students of SMK Negeri 1 Modoinding. This result is indicated by the multiple correlation coefficient (multiple correlation) of 0.919, which, when compared with the interpretation criteria, the correlation index is in the very strong or high category (index criteria attached). From these results, it can be concluded that speed and agility are the basic components of biomotor as a driving force to improve the movement ability of techniques in dribbling or kicking the ball, because the physical condition of a player or athlete will determine his achievement; as Sajoto (1988:10) said, "physical condition is one of the indispensable requirements in every effort to improve athlete achievement; it can even be said to be the basis of an achievement prefix." Physical condition is a unified whole that cannot be separated into improvement and maintenance, meaning that every effort to improve physical condition must develop all of these components, although it needs to be done with a priority system.

From the results of the multiple correlation test analysis, which states that there is a positive and significant relationship between speed and agility together with dribbling skills in soccer games for students of SMK Negeri 1 Modoinding, it has been proven that the two variables in the form of speed and agility have made a positive contribution to dribbling skills in soccer games.

These results have been strengthened by the results of a multiple correlation coefficient of Ry1,2 = 0.919 with a determination coefficient of R Square = 0.844. This means that the contribution or contribution of speed and agility together in dribbling skills is 84.40%. Furthermore, the remaining 15.60% is determined by other variables that are not explained one by one or are not discussed in this study.

The results obtained show that both high speed and agility, supported by fast and precise movements, will have a positive impact on dribbling technical movement activities in soccer games. Thus, it can be said that speed and agility together have a positive and significant relationship with dribbling skills in soccer games for students of SMK Negeri 1 Modoinding.

5 Conclusion

Based on the results of research and discussion, several conclusions can be drawn as follows.

1) There is a positive and significant relationship between speed and dribbling skills in soccer games for students of SMK Negeri 1 Modoinding.

2) There is a positive and significant relationship between agility and dribbling skills in soccer games for students of SMK Negeri 1 Modoinding.
3) There is a positive and significant relationship between speed and agility together with dribbling skills in soccer games for students of SMK Negeri 1 Modoinding.

Bibliography

1. Batty.C. Eric, Metode Baru Serangan. Bandung, Pionir Jaya, 1987
2. Coerver Wiel, Sepak Bola Program Pembinaan Pemain Ideal. Jakarta, PT Gramedia, 1985.
3. Dangsina Moeloek Dan Arjadino Tjokro, Kesehatan Dan Olahraga. Jakarta : Fakultas Kedokteran Universitas Indonesia, 1984.
4. Engkos Kosasih. Olahraga Teknik Dan Program Latihan. Jakarta: Akademika Presindo. 1985.
5. Fred N. Kerlinger Terjemahan Landung R. Simatupang. Asas-Asas Penelitian Behavioral. Gadjah Mada University Press. Jogjakarta 2000.
6. Harsono. Coaching Dan Aspek-Aspek Psikologi Dalam Coaching. Depdikbud, Dirjend Dikti P2PLTK, Tambak Kusuma Jakarta 1988
7. Hughes Charles. Soccer Tactics And Skill. London: British Broadcasting Corporation 1980.
8. Koger Robert. Latihan Andal Sepak Bola Remaja. Latihan Dan Keterampilan Andal Untuk Pertandingan Dasar Yang Lebih Baik. Saka Mitra Kompetensi. Klaten. 2007.
9. Mielke Danny, Dasar-Dasar Sepak Bola. Cara Yang Lebih Baik Untuk Mempelajarinya. Pakar Raya, Bandung 2007.
10. Muhajir. Teori Dan Praktek Pendidikan Jasmani. Yudistira. Bandung 2003
11. Nala Ngurah, Prinsip Pelatihan Fisik Olahraga. Program Pascasarjana Prodi Fisiologi Olahraga. Universitas Udayana. Denpasar 1998.
12. Nurhasan, Tes Dan Pengukuran. Departement Pendidikan Dan Kebudayaan. Universitas Terbuka. Jakarta 1986.
13. Sajoto. Peningkatan Dan Pembinaan Kekuatan Kondisi Fisik Dalam Olahraga. Dahara Prize Semarang. 1995.
14. Scheunemann Timo., Dasar Sepakbola Modern Untuk Pemain Dan Pelatih. Percetakan Dioma. Malang 2005.
15. Sneyers Jeff, Sepak Bola Latihan Dan Strategi Bermain,. Jakarta PT Rosda Jayaputra. 1988.
16. Soejono. Sepakbola: Taktik dan Kerjasama. Yogyakarta: PT. Badan Penerbit Kedaulatan Rakyat, 1985.
17. Matsudo, V.K.R., Rivet, R.E. and Pereira, M.H.N. Standard score assessment on physique and performance of Brazilian athletes in a six tiered competitive sports model. Journal of Sports Sciences, 1987.