

The Relationship of Running Agility and Speed with the Ability to Dribble the Student Participants in the Extracurricular Futsal Activities

I Bagus Endrawan^{1,*}, Martinus¹, Rabwan Satriawan², Khairul Amar²

¹Faculty of Teacher, Education Science and Language, Universitas Bina Darma, 30264, Palembang, Indonesia

²Program Study Physical Education and Recreation, STKIP Taman Siswa, 84113, Bima, Indonesia

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Abstract Futsal is one of the many games favored by people in all parts of the world. Those who play this kind of big ball sport have a special preoccupation. Many futsal tournaments are held in regions, from student level to club level. This is of course a great opportunity for sports lovers in general and futsal in particular. Apart from clubs, futsal is also very popular among students ranging from elementary, junior high, high school to tertiary institutions in Indonesia, especially in the Palembang area. The purpose of this study is to determine the relationship of agility and running speed to the ability to dribble students extracurricular participants futsal Public Junior High School, the method used is the correlation, and the sample amounted to 20 men who follow extracurricular students. Data analysis used is simple correlation analysis for each independent variable with related variables, whereas for together with double correlation of research result between variable X1 with Y obtained $r_{hitung} = 0,586 > r_{tabel} 0,444$ then H_0 rejected and H_a accepted, variable X2 and Y obtained $r_{hitung} = 0,792 > r_{tabel} 0,444$ then H_0 rejected and H_a accepted, and variables X1, X2 with Y obtained $r_{hitung} = 0,817 > r_{tabel} 0,444$ then H_0 rejected and H_a accepted and value $F_{hitung} = 17,044 > F_{tabel} 3,59$ means H_0 rejected and H_a accepted. Because the three variables show a positive direction, it can be concluded that there is a relationship between agility and running speed to the ability to dribble students extracurricular participants futsal

Junior High School.

Keywords Agility, Running Speed, Dribbling Capability

1. Introduction

Futsal is one of the many games favored by people in all parts of the world. Those who play this kind of big ball sport have a special preoccupation. Muhammad Mulyono, (2014) [10]. Many futsal tournaments are held in regions, from student level to club level. This is of course a great opportunity for sports lovers in general and futsal in particular. Apart from clubs, futsal is also very popular among students ranging from elementary, junior high, high school to tertiary institutions in Indonesia, especially in the Palembang area. One of the schools that have futsal extracurricular activities, based on the results of interviews with extracurricular advisers, futsal is the most popular activity.

Jhustus Lhaksana, (2011) [7], this game itself is carried out by five players for each different team with eleven soccer players per team. The size of the field and the size of the ball are smaller than the size used in grass

field football. To get good performance in futsal, of course, must be supported by better mastery of basic techniques. The basic technique of playing futsal includes several things. According to Sukirno, (2010) [17], The basic techniques that must be mastered in playing futsal are passing, holding the ball (control), chipping, dribbling, shooting, dribbling an important role in futsal, according to Jhustinus Lhaksana, (2010) [7], dribbling technique is an important skill and absolutely must be mastered by every futsal player.

Dribbling is the ability each player has in possession of the ball before it is given to his friend to create opportunities to score goals. Agility and speed are needed by a futsal player in dealing with certain situations and match conditions that require elements of agility and speed in controlling the ball and in defending in avoiding collisions that occur. Based on my observations, students who take part in extracurricular activities do not all have basic skills, especially the ability to dribbling is still relatively low, it can be seen that when they play it is still difficult to bring the ball to the point closest to the goal. Meanwhile, the dribbling test is still rare, so it is not known how much the students' agility and speed towards the dribbling skill.

The extracurricular participants also do not know much about what factors influence them to be able to dribble well. Therefore, to achieve this target requires maximum effort to develop students' dribbling skills by providing an understanding of the factors that influence dribbling techniques. In 2016 the extracurricular has participated in inter-school futsal competitions several times but has yet to get any achievements, this is also a reference that students Junior High School still needs improvement in basic techniques of playing futsal. For this reason, the first thing to do is to measure the extent to which students have the basic skills of dribbling the ball, as well as knowing what things affect them in order to dribble well. Dribbling requires good skills and support for good physical conditions such as agility and speed.

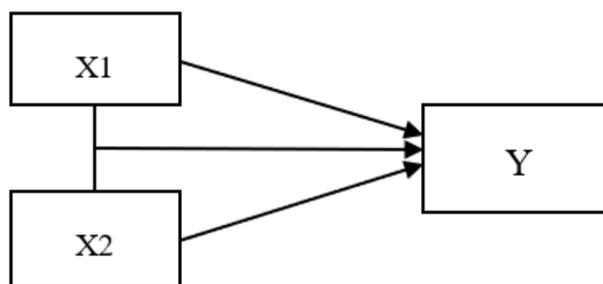
According to Ismaryati, (2011) [6], agility is one component of physical fitness that is indispensable in all activities that require rapid changes in body position and its parts. Agility is also needed in freeing oneself from opponent's control by dribbling the ball.

According to Teguh Sutanto, (2016) [18], speed is the ability of the fastest movement. In terms of the motion system, velocity is the basic ability of the central nervous system's mobility to display movements at a certain speed. From a mechanical point of view, velocity is expressed as the ratio between distance and time. Based on the description above, the writer would like to conduct a research entitled: "The Relationship of Running Agility and Speed with the Ability to Dribble the Student Participants in the Extracurricular Futsal Activities for Junior High School".

2. Material and Methods

This research is a correlation study. According to Suharsimi Arikunto, S, (2006) [15], correlation research aims to find out whether there is a relationship and if there is, how close the relationship is and the meaning or not the relationship is.

Research design is a design made by the researcher, as a prefix to the activities to be carried out. Suharsimi Arikunto, (2006) [15]. Besides that, to find out whether there is a relationship between the objects to be studied. The research design is divided into two, namely agility data collection (X1), running speed data collection (X2) and dribbling ability data collection (Y), so that the data for variable X can be correlated with variable data Y. The research framework can be described as follows:



(Source: Sugiyono, (2010) ^[13])

Information:

X₁ : Agility

X₂ : Running speed

Y: Ability dribbling futsal

Picture 1. The Research Framework

Variables are anything in the form that is determined to be studied so that information about it is obtained, then the conclusion is drawn. Sugiyono, (2011) [14]. Research variables are basically everything in any form determined by the researcher to be studied in order to obtain information about it, then.

The variable X in this study is as follows:

- Agility in futsal extracurricular activities at Junior High School.
- Running speed for futsal extracurricular participants at Junior High School.

As for the dependent variable in this study is the ability to dribble futsal.

The operational definition in this research is the agility in this research is the body skill of the futsal team players at the Junior High School, to move quickly in all directions, namely the ability to start and stop making movements quickly as measured by the dogging run test in seconds.

3. Result and Discussion

This research was conducted to determine the

relationship between Agility and Running Speed on the ability to dribble the Futsal Extracurricular Participants in Junior High School. This research was conducted at 31 Palembang State Junior High School. The subjects of this study were male students who took part in extracurricular activities totalling 20 students.

This study consisted of three variables, namely two independent variables (Agility and Running Speed), and one dependent variable, namely the ability to dribble. Furthermore, the variable is represented as X1 for agility, X2 for running speed, and Y for the dependent variable of the ability to dribble in futsal extracurricular students. The tabulation of rough data from measurement results can be seen in the: $r_{hitung} = 0.792 > r_{tabel} = 0.444$ then H_0 is rejected and H_a is accepted, meaning that the correlation in this study is positive, so it can be stated that there is a significant relationship between running speed and the ability to dribble. And the closeness of the relationship is strong because the coefficient (Pearson correlation) = 0.792 means strong.

From it can be seen that the Pearson correlation value between the Agility variable and running speed on the ability to dribble is obtained $r_{count} = 0.817 > r_{table} = 0.444$ then H_0 is rejected and H_a is accepted means that the correlation in this study is positive, it can be stated that it means there is a significant relationship between running agility and speed on the ability to dribble. And the closeness of the relationship is very strong because the correlation coefficient (pearson correlation) = 0.817 means that it is very strong.

1. The third hypothesis states "There is a significant relationship between running agility and speed on the ability to dribble for students participating in the extracurricular activities at the Junior High School."
2. That the Pearson correlation value between the Agility variable and running speed on the ability to dribble is obtained $r_{count} = 0.817 > r_{table} = 0.444$ then H_0 is rejected and H_a is accepted means that the correlation in this study is positive, it can be stated that it means there is a significant relationship between running agility and speed on the ability to dribble. And the closeness of the relationship is very strong because the correlation coefficient (Pearson correlation) = 0.817 means that it is very strong.
3. If the probability value is $0.05 > \text{Sig. F change}$, then H_0 is rejected and H_a is accepted.

The probability value (sig.F change) = 0,000 is obtained because the sig.F change value is 0,000 < 0.05 , then the decision is that H_0 is accepted and H_a is rejected. This means: agility and running speed are simultaneously and significantly related to the ability to dribble.

Table 1. Distribusi nilai Ftabel Significance 5% dan 1%

N	The level of significance	
	5%	1%
1	0.997	0.999
2	0.950	0.990
3	0.878	0.959
4	0.811	0.917
5	0.754	0.874
6	0.707	0.834
7	0.666	0.798
8	0.632	0.765
9	0.602	0.735
10	0.576	0.708
11	0.553	0.684
12	0.532	0.661
13	0.514	0.641
14	0.497	0.623
15	0.482	0.606
16	0.468	0.590
17	0.456	0.575
18	0.444	0.561

4. Discussion

It is well known how important agility is for almost any sport. Therefore agility must always be included in the physical condition training program for players. In doing dribbling in the futsal game, agility is needed in dribbling so that the dribbling is done better and optimally. Therefore agility affects the results of futsal extracurricular dribbling. At present stage, one of the most important tasks of physical education at second year of children's studying in comprehensive educational establishment is their rational adaptation to new conditions of educational activity (Klyus O.A, (2014)) [9].

Inconsistent findings have been reported on risk factors for metabolic syndrome. However, the majority of conducted studies have suggested the positive effects (Seyyed Reza Attarzadeh Hosseini and Keyvan Hejazi, (2016), [12].

If the results obtained are linked to the framework of thought and the theories that underlie it, basically the results of this study support the existing theory. This can be explained that if the athlete has good or normal agility, he will be able to dribble well and optimally.

Participants in the exercise condition showed a larger decrease in two of the three indicators of study-related fatigue (i.e., overall fatigue and need for recovery) as compared to controls. Additionally, sleep quality and some indicators of cognitive functioning were improved more among exercisers than among controls. No effects were found for self-efficacy, and physical fitness. The initial effects of the exercise intervention lasted at follow-up (T2 and T3). At 12-week follow up (T3), 80% of participants in the exercise condition still engaged in regular exercise, and further enhancements were seen for emotional exhaustion, overall fatigue, and sleep quality (Juriena D. de Vries, Madelon L. M. van Hooff, Sabine A. E. Geurts, Michiel A. J. Kompie, (2016)) [8].

Agility and running speed are needed and it can be said in all sports, therefore the physical elements, namely agility and running speed in futsal, have many factors that must be considered. One of the factors is physical condition, among others, agility and running speed, because the agility and running speed really support good dribbling skills in futsal games. Flexibility is the ability of an individual to move the body and its parts through as wide range of motion as possible without undue strain to the articulations and muscular attachments. Flexibility provides another dimension in performance that allows a higher degree of freedom and ease of movement coupled with some important implications for greater safety from injury. (Govind B. Taware, Milind V. Bhutkar, Anil D. Surdi, (2013)) [4].

Exercise is an integral part of human life. Referring to the classical principle of *mens sana in corpore sano* (a healthy soul exists in a healthy body), it is time for exercise to be a part of education today (Rabwan Satriawan, (2019)), [11].

That increased body mass correlates with decreased cardiorespiratory and musculoskeletal fitness. Interventions should be developed to target these important components of physical fitness in this demographic group, (Emmanuel Bonney, Gillian Ferguson, and Bouwien Smits-Engelsman, (2018)) [2].

5. Conclusions

The results of the research and discussion that have been described earlier can draw some conclusions. The following are some of the conclusions drawn:

1. There is a positive and significant relationship between Agility and the ability to dribble for students participating in the futsal extracurricular Junior High School.
2. There is a positive and significant relationship between running speed and the ability to dribble the students participating in the futsal extracurricular Junior High School.
3. There is a positive and significant relationship between Agility and Running Speed with the ability

to dribble for students participating in the futsal extracurricular Junior High School.

REFERENCES

- [1] Anwar Sanusi. 2011. *Metode Penelitian Bisnis*. Jakarta Selatan: Selemba Empat.
- [2] Emmanuel Bonney, Gillian Ferguson, and Bouwien Smits-Engelsman. Relationship between Body Mass Index, Cardiorespiratory and Musculoskeletal Fitness among South African Adolescent Girls. *International Journal. Environ. Res. Public Health*. 15,1087. 2018. doi:10.3390/ijerph15061087.
- [3] Feri Kurniawan. 2012. *Buku Pintar Olahraga: Mens Sana In Copore Sano*. Laskara Askara, Jakarta.
- [4] Govind B. Taware, Milind V. Bhutkar, Anil D. Surdi. *Journal of Krishna Institute of Medical Sciences University JKIMSU*, Vol. 2, No. 2. 2013.
- [5] Ismaryati. 2008. *Tes & Pengukuran Olahraga*. Surakarta: LPP UNS dan UNS Press.
- [6] Ismaryati. 2011. *Tes & Pengukuran Olahraga*. Jawa Tengah: LPP UNS dan UPT.
- [7] Jhustinus Lhaksana. 2011. *Taktik dan Strategi Futsal Modern*. Jakarta: Be Champion
- [8] Juriena D. de Vries, Madelon L. M. van Hooff, Sabine A. E. Geurts, Michiel A. J. Kompier. Exercise as an Intervention to Reduce StudyRelated Fatigue among University Students: A Two-Arm Parallel Randomized Controlled Trial. *PLoS ONE* 11(3): e0152137. doi:10.1371/journal.pone.0152137. 2016.
- [9] Klyus O. A. Effectiveness of the Pilot Program Correction Psychophysical Condition of Children In The Second Year of A Common Educational School. *Pedagogics, psychology, medical-biological problems of physical traing and sports*. Vol 3, pp.25-30. 2014. doi:10.6084/m9.figshare.936962.
- [10] Muhammad Mulyono. 2014 *Buku Pintar Panduan Futsal*. Jakarta: Laskar Askara.
- [11] Rabwan Satriawan, (2019). The Effect of Physical Fitness on The Grade Point Average of Students of Physical Education at STKIP Taman Siswa Bima. *Malaysian Journal of Movement, Health & Exercise*, 8(2), 131-137, 2019. <https://doi.org/10.15282/mohe.v8i2.323>.
- [12] Seyyed Reza Attarzadeh Hosseini & Keyvan Hejazi. A Review of the Effects of Ramadan Fasting and Regular Physical Activity on Metabolic Syndrome Indices. *J Fasting Health*.; 4(1): 1-16. 2016.
- [13] Sugiyono. 2010. *Metode Penelitian Kuantitatif, Kualitatif dan R & D*. Bandung: Alfabeta.
- [14] Sugiyono. 2011. *Metode Penelitian Kuantitatif, Kualitatif dan R & D*. Bandung: Alfabeta.
- [15] Suharsimi Arikunto. 2006. *Prosedur Penelitian Suatu Pendekatan Praktek*, EdisiRevisi, PT, Rineka Cipta, Jakarta.

- [16] Suharsimi Arikunto. 2010. *Prosedur Penelitian Suatu Pendekatan Praktik*. Jakarta: PT Rineka Cipta.
- [17] Sukirno. 2010. *Belajar bermain futsal*. CV Arya Duta.
- [18] Teguh Sutanto. 2016. *Buku Pintar Olahraga*. Yogyakarta: Pustaka Baru Press.
- [19] Widiastuti. 2015. *Tes dan Pengukuran dalam Olahraga*. Jakarta: Rajawali