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RELATIONSHIP BETWEEN LIMB MUSCLE STRENGTH AND AGILITY WITH DRIBBLING SKILLS IN FOOTBALL EXTRACURRICULAR STUDENTS

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Abstract
This research was conducted because it wanted to know the relationship between leg muscle strength with dribbling skills and agility with dribbling skills in soccer extracurricular participants at SMP Negeri 1 Tanjung Bumi. In this study, the author uses a type of correlation research method with a quantitative approach. This research was carried out at SMP Negeri 1 Tanjung Bumi for one day from 23 to 24 March 2022. This study used 3 instruments, one of which was (1) Leg-dynamometer, this tool is used to measure leg muscle strength in kilograms (kg) (2) Zig-zag Run Test, this test is used to determine agility, (3) Dribbling, this test is used to determine students' dribbling skills. The sample used was a total of 30 male students who took part in extracurricular football at SMP Negeri 1 Tanjung Bumi and used the Total Sampling technique. Based on the results of the calculations and discussion above, it can be concluded that there is a relationship between leg muscle strength with dribbling skills and agility with dribbling skills in soccer extracurricular participants at SMP Negeri 1 Tanjung Bumi.

Keywords: *Leg Muscle Strength; Agility; Dribbling Skills.*

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INTRODUCTION

Education is a place to learn the knowledge, skills and habits of a group of people that are passed down from one generation to the next through self-taught learning, training or research. Education is also a process that consists of 3 aspects of perspective, individual, community, or the national community of the individual (Nurkholis, 2013). In education there are several levels or levels starting from PAUD, kindergarten, elementary, junior high, high school and college.However, on March 24, 2020, the Minister of Education and Culture of the Republic of Indonesia issued Circular Letter Number 4 of 2020 regarding the implementation of education

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policies during the emergency period of the spread of COVID-19. In these two years the pandemic outbreak has greatly affected student educationat school, including extracurricular education at school, so that the impact is that it is difficult for students to develop their interests and talents because extracurriculars are canceled or closed due to the impact of the COVID-19 pandemic (Siahaan, 2020).

Extracurricular is a learning activity carried out by all school students outside of class hours. This sport extracurricular activity has the aim of supporting the increase in student interest so that they have enthusiasm and interest in studying and can foster a sense of responsibility as independent students (because this extracurricular is carried out outside of class hours) (Syofian & Gazali, 2021). In extracurricular activities at SMP Negeri 1 Tanjung Bumi there are compulsory and optional extracurriculars, examples of mandatory extracurriculars are scouts, and elective extracurriculars such as Sports, Theater, and Arts. Football is the most preferred extracurricular by male students at SMP Negeri 1 Tanjung Bumi. Due to the impact of this pandemic, extracurricular activities have been disrupted so that all participants who take extracurricular activities at SMP Negeri 1 Tanjung Bumi find it difficult to develop their interests and talents, including the talents of students who take extracurricular football. Students who take extracurricular activities find it difficult to improve their dribbling skills because extracurricular activities are closed, and this has an impact on their soccer extracurricular achievements.

Football is a type of large ball game that is played in teams or teams with each team consisting of 11 players including the goalkeeper. This soccer sport uses a ball made of leather and is played on a grass field. The development of football in Indonesia is currently very fast, it can be seen from the current premier league and the abundance of sponsors of investors, at the regional level youth leagues and student leagues are also actively contested, even at the local level new clubs have sprung up to enliven regional football (Anwar, 2018). In soccer there are several basic techniques, namely, dribbling (dribbling), shooting (kicking), passing

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(passing) and stopping the ball, but in this study the researchers used the basic technique of dribbling soccer (Arwandi & Firdaus, 2021).

Dribbling or carrying the ball is a basic technique in soccer that can be done using the inside of the foot, the outside of the foot and using the back of the foot (Fajar Ramadhan et al., 2020). The ball dribbling technique is an important basic technique and must be possessed because players are required to run constantly carrying or dribbling the ball (Nur Fajrin et al., 2021). The purpose of dribbling is to get past the opponent, slow down play and get closer to the target or goal distance. In carrying out the dribbling technique, physical fitness training is needed, including agility and leg muscle strength. Agility has an important role in the ball dribbling ability of every athlete or player.

Agility is one aspect of physical fitness which can be interpreted as an ability to change the direction or position of the body quickly (Angga Yudha Irawan, 2019). Agility is part of the motor freshness component that is indispensable for all activities that require the speed of change in the direction of the body and its parts (Zusyah Porja Daryanto & Khoirul Hidayat, 2015). Agility has a contribution to dribbling skills (Dodi Darmawan & Setyawati, 2020). The purpose of doing agility exercises is to make the body more agile in moving and changing places or positions without feeling tired (Bakti Sosiawan, 2019). Likewise with leg muscle strength which also has an important role in dribbling. Leg muscle strength is a person's ability to use his leg muscles to the maximum (Angga Yudha Irawan, 2019). Leg muscle strength is the ability of the body's skeletal muscles to contract or maximum tension in receiving loads during activities and is measured using a leg dynamometer (Patraserasah, 2017).

METHOD

In this study, the author uses a type of correlation research method with a quantitative approach. Correlation research is research that connects one or more independent variables with one dependent variable without any attempt to influence the variable(Maksum, 2012).With data in the form of numbers which will later be

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described in words to clarify the meaning of a number. Therefore, this research can also be called descriptive correlational research. This research was conducted at SMP Negeri 1 Tanjung Bumi for one day from 23 to 24 March 2022, after obtaining a research permit from the campus to conduct research in the school to be studied.

This study uses 3 instruments, one of which is (1) Leg-dynamometer, this tool is used to measure leg muscle strength in kilograms (kg) (2) Zig-zag Run Test, this test is used to determine agility, (3) Dribbling This test is used to determine students' dribbling skills. The sample used was a total of 30 male students who took part in extracurricular football at SMP Negeri 1 Tanjung Bumi and used the Total Sampling technique.

The results of the data obtained were then tested for prerequisites, which included a normality test using the Shapiro-Wilk test, and a homogeneity test using the Levene Test technique. After the prerequisite test has been carried out, a hypothesis test will be carried out, namely the correlation test, this test uses the Product Moment Correlation technique. All prerequisite tests and hypothesis testing were carried out using SPSS for Windows version 23.

RESULT AND DISCUSSION

Normality test

The normality test carried out in this study aims to determine whether the data that has been obtained can be normally distributed or not. The normality test in this study used SPSS for Windows 23 and used a technique called Shapiro-Wilk and got the results as shown in the table below.

Table 1. Normality Test Results

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Agility	,111	30	,200	,971	30	,574
Limb Muscle Strength	*,116*	30	,200	,959	30	,291
Dribbling Skills	*,140*	30	,140	,971	30	,580

From the data in the table above, the value of Sig. from the output is 0.574 for agility, 0.291 for the limbs, and 0.580 for dribbling, from all the output results

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above > 0.05 then from making these decisions with the Shapiro-Walk normality test it can be concluded that the output data above are normally distributed.

Homogeneity Test

In this study, researchers have also conducted a prerequisite test, the prerequisite test also uses a homogeneity test. The homogeneity test conducted in this study aims to determine whether the variances of several populations are the same or not. Homogeneity test in this study using *SPSS for Windows* 23 and used a technique called the Levene Test and got the results as shown in the table below.

Table 2. Homogeneity Test Results *Levene Test*
Residual for Dribbling Skills

Levene Statistic	df1	df2	Sig.
2,500	6	21	,055

The significance value of the table above is 0.055 which is greater than 0.05, so from making the decision by using the Levene's homogeneity test, it can be concluded that the data can be said to have the same or homogeneous variance.

Hypothesis testing

Table 3. Correlation Test Results *Product Moment*

Correlations

		Agility	Muscle_limbs	herding
Agility	Pearson Correlation	1	,028	,117
	Sig. (2-tailed)		,883	,538
	N	30	30	30
Muscle_limbs	Pearson Correlation	,028	1	,576**
	Sig. (2-tailed)	,883		,001
	N	30	30	30
herding	Pearson Correlation	,117	,576**	1
	Sig. (2-tailed)	,538	,001	
	N	30	30	30

**. Correlation is significant at the 0.01 level (2-tailed).

Based on the output above, it is known that agility (X1) and dribbling (Y) has a significance value of 0,538 <0.05, which means there is a significant correlation. So, it can be concluded that there is a relationship between agility and dribbling skills. Furthermore, between leg muscles (X2) and herding (Y) a

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significance value of 0.001 <0.05, which means there is a significant correlation. So, it can be concluded that there is a relationship between leg muscle strength and dribbling skills.

DISCUSSION

The results of the study of the relationship between leg muscle strength and agility with dribbling skills in soccer extracurricular students at SMPN 1 Tanjung Bumi to find out whether there is a relationship between leg muscle strength and dribbling skills and agility with dribbling in soccer extracurricular participants at SMP Negeri 1 Tanjung Bumi , so that the overall results of 30 students who have done the leg muscle strength test, agility test and dribbling test, the data or results obtained by the analysis that has been done by the researcher.Based on the results of research or data that has been collected and after testing and data processing, it turns out that there is a significant positive relationship between leg muscle strength and agility on dribbling skills in participants who take extracurricular activities at SMP Negeri 1 Tanjung Bumi.

In the sport of soccer, the components of physical condition play an important role (I Made Dwi Ariyuda et al., 2018), for example leg muscle strength and agility in supporting the ability to dribble (Patraserasah, 2017). Dribbling techniques need to be mastered properly (Bahtra et al., 2021). The skill of dribbling the ball is the individual ability of every football player (Mappaompo et al., 2022). And every soccer player must be skilled at dribbling, because dribbling skills are very important for a professional soccer player. In addition to building an effective attack and mastering the match, dribbling skills are also needed (Hendra Agus Setiono et al., 2013).

Leg Muscle Strenght

Table 4. Distribution Frequency Leg Muscle Strength

Interval class	Absolute Frequency	Relative Frequency(%)
259.50 – to the top	0	0%
187.50 – 259.00	27	90%
127.50 – 187.00	3	10%

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84.50 – 127.00	0	0%
SD –84.00	0	0%
Amount	30	100%

The frequency distribution table of leg muscle strength above can be seen that for the interval class 259.50 – and above there are 0 people or 0%, the interval class 187.50 – 259.00 is 27 people or 90%, the interval class 127.50 – 187.00 is 3 people or 10%, interval class 84.50 – 127.00 totaling 0 people or 0%, elementary class interval –84.00 totaling 0 people or 0%, of all subjects studied. An explanation of the frequency distribution above can also be seen in the following histogram:

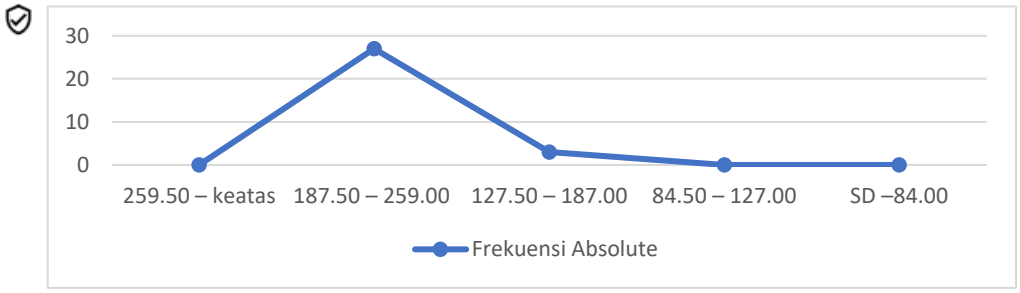

Figure 1. Leg Muscle Strength Test Result

Agility

Table 5. Distribution Frequency Agility

Interval class	Absolute Frequency	Relative Frequency(%)
> 5,60	0	0%
5,70 – 6,70	12	40%
6,80 – 7,80	9	30%
7,90 – 8,90	7	23%
9,00 – 10,00	2	7%
Amount	30	100%

The frequency distribution table of leg muscle strength above can be seen that for the interval class > 5.60 totaling 0 people or 0%, interval class 5.70 – 6.70 totaling 12 people or 40%, interval class 6.80 – 7.80 totaling 9 people or 30%, interval class 7.90 – 8, 90 totaling 7 people or 23%, class interval 9.00 - 10.00

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totaling 2 people or by 7%, of all subjects studied. An explanation of the frequency distribution above can also be seen in the following histogram:

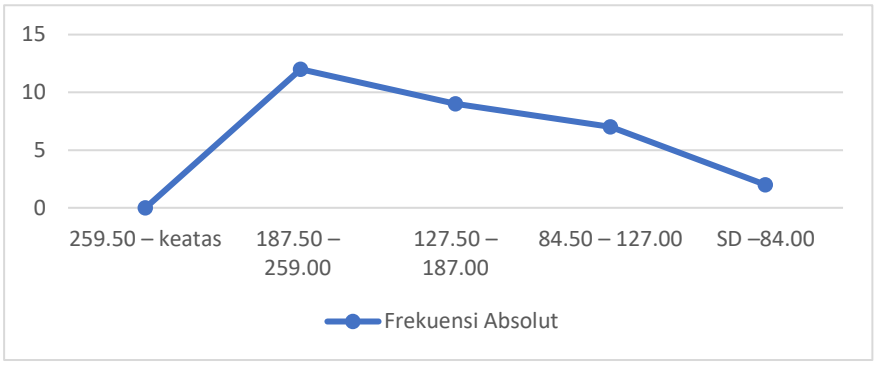

Figure 2. Test Results Agility

Dribble

Table 3. Frequency Distribution Dribble

Class Interval	Absolute Frequency	Relative Frequency (%)
66	4	12%
53 – 65	12	35%
41 – 52	9	26%
39 – 40	7	21%
30	2	6%
Amount	30	100%

The table for the frequency distribution of leg muscle strength above can be seen that for the interval class66totaling 4 people or 12%, interval class53 – 6512 people or 35%, interval class 41 – 52 totaling 9 people or 26%, interval class39 – 40 totaling 7 people or 21%, interval class 30 amounted to 2 people or by 6%, of all subjects studied. An explanation of the frequency distribution above can also be seen in the following histogram:

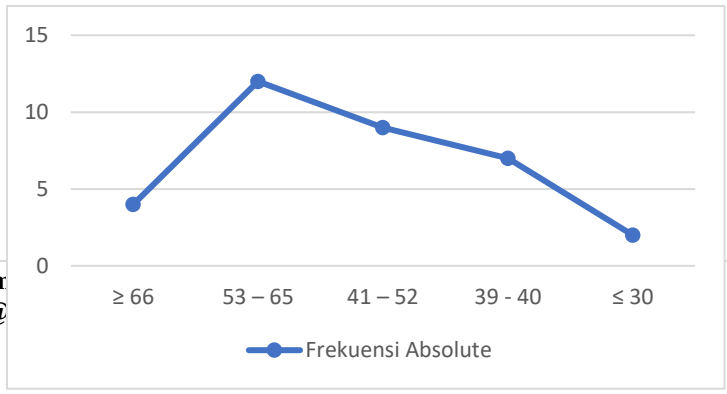

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Figure 3. Test Results Dribble

CONCLUSION

Based on the results of the calculations and discussion above, it can be concluded that there is a relationship between leg muscle strength and dribbling skills and there is a relationship between agility and dribbling skills in soccer extracurricular participants at SMP Negeri 1 Tanjung Bumi. This study succeeded in proving the hypothesis that: There is a relationship between leg muscle strength and dribbling skills in soccer extracurricular participants at SMP Negeri 1 Tanjung Bumi, There is a relationship between agility and dribbling skills in soccer extracurricular participants at SMP Negeri 1 Tanjung Bumi

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