



Basketball Dribble in Students of SMA Negeri 9 Makassar (Correlation of Arm Muscle Strength, Speed and Agility)

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ABSTRACTS

One of the interesting aspects of the game of basketball is dribbling which varies in direction and speed to get past the opponent and then put the ball into the basket. There are several factors that influence success in dribbling, including talent and will, as well as physical conditions such as arm muscle strength, speed, and agility. To be able to play well, you have to do regular, continuous, and ongoing practice. This research is a descriptive quantitative study that aims to determine the contribution of arm muscle strength, speed, and agility to the basketball dribbling ability of class XI students at SMA Negeri 9 Makassar. The population of this study was class XI students of SMA Negeri 9 Makassar with a total sample of 43 people selected using a cluster sampling technique. Based on the results of data analysis, the following results were obtained: The level of arm muscle strength of class XI students at SMA Negeri 9 Makassar was in the "very good" category with a percentage of 69.76%. The speed level of class XI students at SMA Negeri 9 Makassar is in the "very less" category with a percentage of 41.86%. The level of agility of class XI students at SMA Negeri 9 Makassar is in the "medium" category with a percentage of 27.90%. The level of basketball dribbling ability of class XI students at SMA Negeri 9 Makassar is in the "good" category with a percentage of 39.53%. There is a simultaneous contribution of arm muscle strength, speed, and agility to the basketball dribbling ability of the class. With the following contribution percentages, arm muscle strength is 17.82%, speed is 29.80%, and agility is 33.76%, while 18.9% is influenced by other factors.

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INTRODUCTION

Basketball is an important sport because it contains educational values (Setiawan et al., 2020). Where basketball itself is a team game that requires cooperation from each member of the team (Latuheru et al., 2022). Apart from that, the game of basketball also plays an important role in developing and improving optimal performance in other sports (Yenes et al., 2018) because basketball is a physical activity that contains natural movements such as walking, running, jumping, etc. reject and throw away (Ridwan, 2020). Basketball is one of the major ball games taught in secondary schools through Physical Education, Health and Recreation subjects (Apriansyah et al., 2018).

Apart from being taught in PJOK subjects, basketball is also an extracurricular activity in every school (Mahardi, 2016). This activity can make a significant contribution to student regeneration to make them excel in the sport of basketball (Lestrai & Apriyanto, 2016). Therefore, students with potential are then directed to deepen further by taking part in basketball practices taught through extracurricular activities at school (Rubiana, 2017). Apart from that, students can also have the opportunity to take part in basketball competition events, for example, district-level student basketball championship events, provincial-level student basketball championship events, and even national and international student basketball championships (Anggreni et al., 2022). Therefore, the role of PJOK teachers in seeing and paying attention to students' basic potential is very necessary (Anggreni et al., 2022).

The game of basketball is a group sport consisting of two opposing teams with 5 members each (Syahban, 2018), where the game of basketball aims to get as many points as possible by putting the ball into the opponent's ring (Ishak & Sahabuddin, 2018). In the game of basketball, players are required to master several basic basketball techniques and also good playing techniques (Yarmani & Juniasyah, 2017). Dribbling, shooting and passing are basic techniques that a player must master (Arwih, 2019). Apart from technical mastery, playing basketball also requires good physical condition to support basketball playing skills such as agility, endurance, strength, speed and so on (Perdana et al., 2017).

One of the interesting aspects of the game of basketball is dribbling which varies in direction and speed to get past the opponent and then put the ball into the basket (Ramadhani & Riyanto, 2018). Many points are created starting with good dribbling and ending with accurate shots (Illahi, 2019). Dribbling is in principle carrying the ball by bouncing it with one hand which is done by walking or running (Fatahila, 2018). There are several factors that influence success in dribbling, including: talent and will, leg muscle strength, arm muscle strength, speed, flexibility, balance and agility (Riyoko, 2019).

Running speed is needed in the game of basketball, especially in dribbling. Players who have running speed in dribbling have many advantages, including breaking through the

opponent's defense, bringing the ball to empty areas, reaching the basket, and so on. So the level of a person's running speed will influence the ability to master basketball dribbling techniques in a basketball game.

Agility is a component of physical condition that plays an important role in playing basketball, especially in avoiding attacks from opponents when dribbling (Asfanza et al., 2019). The body's ability to twist and turn to avoid an opponent's attack is very necessary for basketball players, because basketball is a fast game. In this way, agile movements will really enable a basketball player to control the ball and be able to get past the opponent's obstacles, as well as to break through the opponent's tight defense (Riyoko, 2019).

Apart from running speed and agility, arm muscle strength is very important in playing basketball (Ramadhani & Riyanto, 2018). About arm muscle strength, arm muscle strength can help players in dribbling well because arm muscles influence accuracy in carrying out movements, especially in directing the arm, wrist and fingers with a smooth touch (Arwih, 2019).

To be able to play well, you have to do regular, continuous and ongoing practice. Body development training both mentally and physically is a subject that determines faster performance. Therefore, the more regularly a player practices, the better his level of basketball playing skills will be. One of the activities that supports the development of students' basketball interests and talents at school is basketball extracurricular activities.

Basketball extracurricular activities at SMA Negeri 9 Makassar have been around for a long time but have not been managed well, so the resulting achievements have not been optimal. Extracurricular basketball at SMA Negeri 9 Makassar has tended to be passive for the last 4 years, this is due to several things: 1) PJOK teachers are also coaches in two sports at the same time, 2) PJOK teachers who serve as coaches do not understand the principles of basketball training, 3) availability of facilities and Infrastructure is also sometimes an obstacle, and 4) the member selection process is not optimal. Most of the extracurricular members are invited members, where they received an invitation from the PJOK teacher to join the basketball extracurricular by looking at their basic potential in certain basic techniques.

Based on the observations of researchers and PJOK teachers at this school, there are still many students at SMA Negeri 9 Makassar who have difficulty dribbling, they still look stiff when dribbling and most of the students' dribbling method involves hitting the ball and their eyes are still focused on the ball. not focused on the surrounding situation. The ball should be bounced and there should be no sound from the touch between the hand and the ball, apart from that the movement to protect the ball when dribbling is also not visible. When playing the game it looks very monotonous without the slightest variation. Students rarely try to dribble the ball, so the ball just moves from one team to the other and spins in the middle of the field.

Apart from that, training for physical conditions such as agility and arm muscle strength for most students who take part in extracurricular basketball at SMA Negeri 9 Makassar is considered unimportant and even seems boring for students. Playing live games is more interesting than

having to do physical training, this may be because playing games is more fun than having to do physical training which is considered very draining. This fact is contrary to the opinion which states that skills or expertise will be limited if the physical condition is weak (Sajoto, 1990). Technical training alone will not be enough to improve your basketball playing skills, therefore, apart from doing technical training, you should also do physical conditioning training.

METHOD

Types of research

This research is an Ex Post Facto type using a descriptive quantitative approach. Ex Post Facto is an approach that shows that research is carried out with variations in natural events or in fact has occurred without any treatment or experiment (Maolani, 2015). Ex-post facto research examines cause-and-effect relationships that are not manipulated or treated by researchers. Causal research is carried out on programs, activities or events that are taking place or have occurred. The existence of a cause-and-effect relationship is based on theoretical studies, that a variable is caused or motivated by a certain variable or causes a certain variable (Sappaile, 2010). This research is also classified as a correlational type of research which is continued by calculating the contribution of the independent variables, namely agility (X1), speed (X2) and arm muscle strength (X3) to the dependent variable, namely the basketball dribbling ability (Y) of SMA Negeri 9 Makassar students. The research design used in this research is a "one-shot case study"

Population and Sample

The population is the group that is of interest to the researcher, which is the group related to whom the generalization of research results applies (Sugiyono, 2014). The population in this study were class XI students of SMA Negeri 9 Makassar. The sample is a small part of the population or representative of the population, so the findings from the sample can be generalized to the population. Sampling in this study used simple random sampling. Simple random sampling is taking sample members from a population randomly without paying attention to the strata in the population. The sample in this study was 43 class XI students of SMA Negeri 9 Makassar from a total of 170 students taken randomly. This is by the opinion of Arikunto (1973) in his book *Research Procedures a Practical Approach*: "If the number of subjects is greater than 100, then a sample of between 10% - 25% or greater than that can be taken, whereas if it is less than 100 people then everything can be used as a sample." The sample in this study was 25% of the 170 class X students of SMA Negeri 9 Makassar, namely 43 people.

Data collection technique

To obtain the data needed in this research, the data collection methods that will be used in this research include level of agility, speed and arm muscle strength and basic basketball technical abilities to obtain data on balabasket dribble ability.

Table 1. Norms for assessing arm muscle strength

No.	Category	Man	Woman
1	Very good	> 38	> 21
2	Good	29 – 37	16 – 20
3	Moderate	20 – 28	10 – 15
4	Less	12 – 19	05 – 09
5	Very less	04 – 11	01 – 04

Table 2. Speed assessment norms

No.	Category	Man	Woman
1	Very good	≤ 7.2	≤ 8.4
2	Good	7.3 – 8.3	8.5 – 9.8
3	Moderate	8.4 – 9.6	9.9 – 11.4
4	Less	9.7 – 11.0	11.5 – 13.4
5	Very less	≥ 11.1	≥ 13.5

Table 3. Agility assessment norms

No.	Category	Man	Woman
1	Very good	≤ 12.10	≤ 12.42
2	Good	12.11 – 13.53	12.43 – 14.09
3	Moderate	13.54 – 14.96	14.10 – 15.74
4	Less	14.97 – 16.39	15.75 – 17.39
5	Very less	≥ 16.40	≥ 17.40

Table 4. Norms for assessing ball dribbles in basketball games

No.	Category	Formula
1	Very good	$X < M - 1.5 \text{ SD}$
2	Good	$M - 1.5 \leq X < M - 0.5 \text{ SD}$
3	Moderate	$M - 0.5 \leq X < M + 0.5 \text{ SD}$
4	Less	$M - 0.5 \leq X < M + 1.5 \text{ SD}$
5	Very less	$M + 1.5 \text{ SD} \leq X$

Data analysis technique

The data analysis technique used in this research is descriptive statistics. According to Suharsimi Arikunto (2006), in general, analysis, work includes three steps, namely: 1) preparation; 2) tabulation; 3) statistics.

The percentage formula used is:

$$P = \frac{F}{N} 100\%$$

Furthermore, the analysis method used in this research is product moment analysis. Before carrying out a product moment analysis test, the method requires carrying out analysis prerequisite tests in order to get the best results (Ghozali, 2011: 105). The aim of fulfilling the prerequisites for this analysis is so that the independent variable as an estimator of the dependent variable is unbiased.

Analysis Prerequisite Test

Before testing multiple linear regression analysis on the research hypothesis, it is first necessary to test the classical assumptions on the data to be processed as follows:

a. Normality test

The normality test aims to test whether in the regression model, the confounding or residual variables have a normal distribution. As is known, the t and F tests assume that the residual values follow a normal distribution. If this assumption is violated then the statistical test will be invalid for small sample sizes. There are two ways to detect whether the residuals are normally distributed or not, namely by graphic analysis and statistical tests. To test whether the data is normally distributed or not, the Kolmogorov-Smirnov Test statistical test is carried out. Residuals are normally distributed if they have a significance value > 0.05 (Imam Ghozali, 2011).

b. Linear Test

The Linearity Test was carried out to find out whether two variables had a significant linear relationship or not, for this reason, the test was carried out using the help of the SPSS program, namely Test For Linearity. The linearity test criteria are as follows:

- 1) Significance > 0.05 , then the data is declared to have a linear relationship.
- 2) Significance < 0.05 , then the data is declared to have no linear relationship.

Hypothesis testing

After all the research data was collected, namely data on levels of agility, speed, arm muscle strength, and basketball dribbling ability test data, to test the hypothesis proposed in this research, the data was compiled, processed, and analyzed using computer assistance through the SPSS program.

The steps taken in analyzing this research data are: To describe the characteristics of respondents for each variable based on the problem that has been formulated. For this purpose, descriptive statistical analysis is used including centrality measurement statistics, namely the arithmetic mean, median, mode, and distribution measurement statistics, namely standard deviation and frequency and percentage distributions. Analysis technique to provide a general overview of the contribution of physical condition (agility, speed, and arm muscle strength) to the basketball dribbling ability of class XI students at SMA Negeri 9 Makassar.

For statistical data analysis and subsequent hypothesis testing, the formula or formulas and steps for analyzing statistical data are as follows:

- a) Carry out multiple linear regression tests
- b) Find the coefficient of determination
- c) Determine the price of F using the calculated F formula
- d) Interpret data with test rules or requirements.

RESULTS

Data Description of Male Students' Agility, Speed, Arm Muscle Strength and Dribble Ability

Table 4. Descriptive data on arm muscle strength, speed, agility and ball dribbling for male students in class XI SMA Negeri 9 Makassar

No.	Statistics	Arm Muscle Strength	Speed	Agility	Dribble the Ball
1	Mean	30.33	11.96	14.18	12.63
2	Median	30	12.05	14.41	12.09
3	Mode	23	7.05	12.03	10.12
4	Std. Deviation	7.17	3.19	1.67	2.30
5	Minimum	22	7.05	12.03	10.12
6	Maximum	4	16.09	16.57	16.19

Description of data on female students' agility, speed, arm muscle strength, and dribbling ability

Table 5. Descriptive data on arm muscle strength, speed, agility, and ball dribbling of female students in class XI SMA Negeri 9 Makassar

No.	Statistics	Arm Muscle Strength	Speed	Agility	Dribble the Ball
1	Mean	28.50	12.27	14.62	13.50
2	Median	28.50	12.23	14.29	12.99
3	Mode	24	10.42	12.42	10.26
4	Std. Deviation	7.17	2.88	1.85	2.43
5	Minimum	15	7.3	12.23	10.26
6	Maximum	39	17.21	18.17	18.04

Test Requirements

Table 6. Normality Test Results

Variable	Kolmogorov-Smirnov ^a		α	Information
	Statistik	P		
Arm Muscle Strength	0.104	0.200	0.05	Normal
Speed	0.091	0.200	0.05	Normal
Agility	0.089	0.200	0.05	Normal
Dribble the Ball	0.123	0.105	0.05	Normal

Table 7. Kolmogorov-Smirnov normality test results

Unstandardized Residual	
N	43
Significance	0.400

Table 8. Linearity test results

	Deviation from linearity (F)	Sig.	Conclusion
X1 with Y	0.898	0.604	Linear
X2 with Y	34.194	0.135	Linear
X3 With Y	6.568	0.302	Linear

Tingkat Kekuatan Otot Lengan Siswa Siswa kelas XI SMA Negeri 9 Makassar

Table 9. Tingkat kekuatan otot lengan siswa putra Siswa kelas XI SMA Negeri 9 Makassar

No.	Intervals	F	Percentage (%)	Category
1	> 38	2	22.2	Very good
2	29 – 37	3	33.3	Good
3	20 – 28	4	44.4	Moderate

4	12 – 19	0	0.0	Less
5	04 – 11	0	0.0	Very less
	Total	9	100.0	

Table 10. Tingkat kekuatan otot lengan siswa putri Siswa kelas XI SMA Negeri 9 Makassar

No.	Intervals	F	Percentage (%)	Category
1	> 21	28	82.4	Very good
2	16 – 20	5	14.7	Good
3	10 – 15	1	2.9	Moderate
4	05 – 09	0	0.0	Less
5	01 – 04	0	0.0	Very less
	Total	34	100.0	

For the category of arm muscle strength level for class XI students at SMA Negeri 9 Makassar, the following results were obtained:

$$\begin{aligned} \text{Very Good} &= \frac{2+28}{43} 100\% = 69.76\% \\ \text{Good} &= \frac{3+5}{43} 100\% = 18.60\% \\ \text{Moderate} &= \frac{4+1}{43} 100\% = 11.62\% \\ \text{Less} &= \frac{0+0}{43} 100\% = 0.0\% \\ \text{Very Less} &= \frac{0+0}{43} 100\% = 0.0\% \end{aligned}$$

The calculation above illustrates that the level of arm muscle strength of class XI students at SMA Negeri 9 Makassar is included in the **Very Good Category** with a percentage of **69.76%**.

Speed Level of Class XI Students of SMA Negeri 9 Makassar

Table 11. Agility level of male students in class XI SMA Negeri 9 Makassar

No.	Interval	F	Percentage (%)	Category
1	< 7.2	1	11.1	Very good
2	7.3 – 8.3	1	11.1	Good
3	8.4 – 9.6	0	0.0	Moderate
4	9.7 – 11.0	2	22.2	Less
5	> 11.1	5	55.6	Very less
	Total	9	100.0	

Table 12. Agility level of female students in class XI SMA Negeri 9 Makassar

No.	Interval	F	Percentage (%)	Category
1	< 8.4	3	8.8	Very good
2	8.5 – 9.8	6	17.6	Good
3	9.9 – 11.4	6	17.6	Moderate
4	11.5 – 13.4	6	17.6	Less
5	> 13.5	13	38.2	Very less
	Total	34	100.0	

For the speed level category for class XI students at SMA Negeri 9 Makassar, the following results were obtained:

$$\begin{aligned} \text{Very Good} &= \frac{1+3}{43} 100\% = 9.30\% \\ \text{Good} &= \frac{1+6}{43} 100\% = 16.27\% \\ \text{Moderate} &= \frac{0+6}{43} 100\% = 13.95\% \\ \text{Less} &= \frac{2+6}{43} 100\% = 18.60\% \\ \text{Very Less} &= \frac{5+13}{43} 100\% = 41.86\% \end{aligned}$$

The calculation above illustrates that the speed level of class XI students at SMA Negeri 9 Makassar is included in the **Very Less Category** with a percentage of **41.86%**.

Agility Level of Class XI Students of SMA Negeri 9 Makassar

Table 13. Agility level of male students in class XI SMA Negeri 9 Makassar

No.	Interval	F	Percentage (%)	Category
1	< 12.10	2	22.1	Very good
2	12.11 – 13.53	1	11.1	Good
3	13.54 – 14.96	3	33.4	Moderate
4	14.97 – 16.39	2	22.2	Less
5	> 16.40	1	11.1	Very less
Total		9	100.0	

Table 14. Agility level of female students in class XI SMA Negeri 9 Makassar

No.	Interval	F	Percentage (%)	Category
1	< 12.42	4	11.8	Very good
2	12.43 – 14.09	11	32.4	Good
3	14.10 -15.74	9	26.5	Moderate
4	15.75 – 17.39	6	17.6	Less
5	> 17.40	4	11.8	Very less
Total		34	100.0	

For the student agility level category, Class XI students at SMA Negeri 9 Makassar got the following results:

$$\begin{aligned} \text{Very Good} &= \frac{2+4}{43} 100\% = 13.95\% \\ \text{Good} &= \frac{1+11}{43} 100\% = 27.90\% \\ \text{Moderate} &= \frac{3+9}{43} 100\% = 27.90\% \\ \text{Less} &= \frac{2+6}{43} 100\% = 18.60\% \\ \text{Very Less} &= \frac{1+4}{43} 100\% = 11.62\% \end{aligned}$$

The calculation above illustrates that the level of agility of class XI students at SMA Negeri 9 Makassar is included in the **Moderate Category** with a percentage of **27.90%**.

Level of dribbling of the ball in the basketball game of class XI students at SMA Negeri 9 Makassar

Table 15. The level of ball dribble in the basketball game for male students in class XI of SMA Negeri 9 Makassar

No.	Interval	F	Percentage (%)	Category
1	$X < 9.18$	0	0.0	Very good
2	$9.18 \leq X < 11.48$	3	33.3	Good
3	$11.48 \leq X < 13.78$	3	33.3	Moderate
4	$13.78 \leq X < 16.08$	2	22.2	Less
5	$X > 16.08$	1	11.1	Very less
Total		9	100.0	

Table 16. The level of ball dribble in the basketball game of class XI female students at SMA Negeri 9 Makassar

No.	Interval	F	Percentage (%)	Category
1	$X < 9.85$	0	0.0	Very good
2	$9.85 \leq X < 12.28$	14	41.2	Good
3	$12.28 \leq X < 14.71$	9	26.5	Moderate
4	$14.71 \leq X < 17.14$	6	17.6	Less
5	$X > 17.14$	5	14.7	Very less
Total		34	100.0	

For the student dribble for ball level category, Class XI students at SMA Negeri 9 Makassar got the following results:

$$\begin{aligned} \text{Very Good} &= \frac{0+0}{43} 100\% = 0.0\% \\ \text{Good} &= \frac{3+14}{43} 100\% = 39.53\% \\ \text{Moderate} &= \frac{3+9}{43} 100\% = 27.90\% \\ \text{Less} &= \frac{2+6}{43} 100\% = 18.60\% \\ \text{Very Less} &= \frac{1+5}{43} 100\% = 13.95\% \end{aligned}$$

The calculation above illustrates that the ball dribble level in the basketball game of class XI students at SMA Negeri 9 Makassar is included in the **Good Category** with a percentage of **39.53%**.

Contribution of Arm Muscle Strength, Speed, and Agility to the Basketball Dribbling Ability of Class XI Students at SMA Negeri 9 Makassar.

Table 17. Hypothesis test results comparing F_{count} Values with F_{Table} Coefficients^a (ANOVA)

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	197.590	3	65.863	55.786	0.000 ^b
Residual	46.045	39			
Total	243.635	42	1.181		

- a. Dependent variable: basketball dribble
- b. Predictors: (Constant), Arm Muscle Strength, Speed, Agility

Table 18. Simultaneous contribution of variables X_1 , X_2 , and X^3 to Y

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
4	0.901 ^a	0.811	0.796	1.08658

Table 19. Calculation of SE and SR agility (X1) on basketball dribbling ability

Variable	B	Cross-Product	Regression	R ²
Arm Muscle Strength	0.559	147.105	197.590	81.1
Speed	0.319	227.532	197.590	
Agility	-0.079	-550.135	197.590	

$$SEX1 = \frac{bX1 \cdot \text{cross Product} \cdot R^2}{\text{Regression}}$$

$$1. \quad SEX1 = \frac{0.559 \times 147.105 \times 81.8}{197.590} = 33.76\%$$

$$2. \quad SEX1 = \frac{0.319 \times 227.532 \times 81.8}{197.590} = 29.80\%$$

$$3. \quad SEX1 = \frac{-0.079 \times -550.135 \times 81.8}{197.590} = 17.82\%$$

DISCUSSION

Level of arm muscle strength in class XI students at SMA Negeri 9 Makassar

The results of tests carried out by class. According to Sajoto (1988), strength is a component of physical condition that concerns the athlete's ability to use his muscles and receive loads within a certain working time. So arm muscle strength is the ability of an athlete to be able to lift the weight required in a certain working time.

Speed level of class XI students at SMA Negeri 9 Makassar

The results of the test carried out by class XI students of SMA Negeri 9 Makassar obtained from the 60-meter running test showed that the speed of class According to Sajoto (1988) speed is a person's ability to carry out continuous movements in the same form in the shortest possible time. Therefore, someone who has high speed can make a short movement within a short time after receiving stimulation. Speed is also one of the factors that determines a person's ability to play basketball. Speed training is very necessary for class XI students of SMA Negeri 9 Makassar to have good performance in sports activities.

Agility level of class XI students at SMA Negeri 9 Makassar

The results of the test carried out by class XI students of SMA Negeri 9 Makassar obtained from the shuttle run test showed that the agility of class According to Sajoto (1988) agility is a person's ability to change direction in certain positions in a certain arena. A person who can change one position to a different position, with high speed and good movement coordination, means that his agility is quite high. Therefore, agility training still needs to be improved to support students' performance in carrying out physical activities or sports.

Level of basketball dribbling ability of class XI students at SMA Negeri 9 Makassar

The results of the test were carried out by the class. Dribbling or dribbling is also a basic element that is always needed in a match. This means that if at any time a player cannot throw the ball to a friend, then he can dribble the ball to a certain destination, for example approaching the basket or freeing himself from an opponent's fight. By dribbling he can play

well too. The ultimate goal of the game of basketball is to score points. To be able to score points, basketball players must be able to master good shooting techniques.

Contribution of arm muscle strength (X1), speed (X2) and agility (X3) to basketball dribbling ability (Y) Class XI students of SMA Negeri 9 Makassar

Based on the research results, show that there is a significant contribution of arm muscle strength (X1), speed (X2), and agility (X3) simultaneously to the dribbling ability (Y) of class XI students at SMA Negeri 9 Makassar, amounting to 81.1%. Where agility contributes 33.76% to dribble ability, speed contributes 29.80% to dribble ability and arm muscle strength contributes 17.82% to dribble ability, Moderate 18.9% is influenced by other factors.

Agility has a very important role in the game of basketball, especially in avoiding opponent attacks when dribbling. Running speed is needed in the game of basketball, especially in dribbling. Players who have running speed in dribbling have many advantages, including breaking through the opponent's defense, bringing the ball to empty areas, reaching the basket, and so on. In moderation, arm muscle strength is a factor in success in dribbling or dribbling the ball, because arm muscle strength helps push the ball to the floor and influences the natural accuracy of the movement, especially directing the arm, wrist, and fingers. Thus, it can be concluded that the better the physical condition, in this case, agility, speed, and arm muscle strength, the better the basketball dribbling ability will also be.

CONCLUSION

Based on the research results and discussions that have been presented, the following conclusions can be drawn:

The level of agility of class XI students at SMA Negeri 9 Makassar is included in the Moderate Category. The speed level of class XI students at SMA Negeri 9 Makassar is included in the Very Less Category. The level of arm muscle strength of class XI students at SMA Negeri 9 Makassar is included in the Very Good Category. The level of basketball dribbling ability of class XI students at SMA Negeri 9 Makassar is in the Good Category. Arm muscle strength, speed and agility together (simultaneously) contribute to the basketball dribbling ability of class XI students at SMA Negeri 9 Makassar.

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