Contribution of Agility and Flexibility to Football Dribbling Skills in Junior High School Extracurricular Students

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Abstract

Dribbling is a basic engineering skill most often used by football players in both amateur and professional classes. Because with dribbling therapy, it can help the effort to score goals into the opponent's goal as the ultimate goal of the football game. This study aims to find out the magnitude of the contribution between agility to dribbling ability in extracurricular football students, then find out the magnitude of the contribution between flexibility to dribbling ability in extracurricular football students of SMP N 2 Liwa, as well as to know the magnitude of the contribution between agility and flexibility to the dribbling ability of football extracurricular students. The sample of this study was 30 junior high school extracurricular students with male gender. The method used is descriptive correlational, which is a study that aims to describe or describe events or events that are taking place at the time the research is carried out without regard to before and after with a validity value of 0.67, and test reliability of 0.79. The results of this study are Agility contributes to dribbling skill results by 50.12%, while the rest is influenced by other variables, flexibility contributes to dribbling skill results by 28.19%, while the rest is influenced by other variables, agility and flexibility contribute to dribbling skill results by 55.65%.

Keywords: Agility, Dribbling Skills, Flexibility, Students

How to cite:
1. INTRODUCTION

Exercise is one way to develop and improve physical and spiritual health. Exercise makes, the circulatory system and the work of the heart will increase, increase in strength, flexibility, stamina, speed, and other physical conditions, while from a spiritual point of view, a fit body will certainly foster self-confidence, excitement, and optimism (Munir et al., 2022). The body is experiencing physical growth, the mind (mental) must be taught and developed, it will have an impact on the child's social development. (Miftahul & Kiram, 2019) Sports can be used as an activity that makes physical condition much better and higher biomotor skills to achieve achievements. Therefore, it requires education through physical activity to cover all aspects of educational development. The game of football is a game that can be categorized as very beautiful and peaceful for connoisseurs from various parts of the world indirectly (Pratama, 2019).

Football is one of the most popular sports and is loved by most people around the world. Football is a very complex game because of the various basic techniques (Zubaidin et al., 2021). In playing a football game a player must have a basic technique which is a key fundamental to master so that he can play skillfully (Indra & Marheni, 2020). Basic technical skills are a must in playing football because they are the basis for floating the application of the application so that the success of a team can be achieved (Hanispi et al., 2021). In addition, in achieving an achievement in playing football a player must master the techniques in football as well as possible (Yani et al., 2020). This sport is increasingly in demand by many people because it can be enjoyed and played by children to adults. Football is also one of the sports games that has been played for a long time in various countries, although it uses different words. In Indonesia, football is one of the most popular sports games.

Learning and practicing basic football techniques is an action that has positive value in an effort to improve football achievements, therefore in order to achieve good achievements, coaches must teach how to play good football by emphasizing mastery of basic football techniques, with various basic technical movements (Munir et al., 2023). The highest achievement can be achieved with hard work and maturity from the results of training (Marta & Oktarifaldi, 2020). Mastering the basic techniques of playing football is an important factor in order to have football skills. The explanation can be known that dribbling is included in the basic techniques of the game of football. (Lesmana, 2019) By practicing basic techniques, it can make players more skilled and can also make players able to reduce various conditions that can cause injuries. In dribbling a ball in a football game that has a goal to pass an opponent and give a pass to a friend appropriately and receive the ball with the ball still in the possession of the player (Rahmawan et al., 2019). However, all techniques in playing football must be supported by excellent physical condition so that it can be done optimally (Ihsan Shabih et al., 2021).

In the game of football there are several kinds of basic skills, these basic skills are aspects that must be mastered by every player to be skilled in playing football. The basic techniques in the game of football that need to be mastered by players in general passing, shooting, dribbling, controlling, heading (heading the ball), throw-in, tackling. (Udam, 2017). In addition to these methods, there are other ways that players who do not carry the ball can do, such as moving to find free space, helping and protecting players who are carrying the ball. And players from the opposing team who do not have the ball try to grab the ball from the opposing player by doing body charges, tackling, shadowing the opposing player who does not carry the
ball, closing the empty space, and closing the shooting space towards the goal. Opportunities can occur if a player has agility.

The agility exercised by athletes or football players while training or competing depends on the ability to coordinate the movement system and response to the situation or condition encountered. (M. A. Putra, 2020) Agility is very useful in situations of avoiding opponents so that there is no collision with the opponent. Agility is determined by the factors of speed of reacting, the ability to master situations and the ability to control sudden movements. Flexibility in football is used to determine the attitude of the body when making dribbling movements and can affect the maximum or not when in possession of the ball. Thus, by maximizing body movement when doing ball dribbling movements with the body position leaning forward, it will produce a good ball dribbling force to the maximum.

Dribbling the ball is one of the skills that must be mastered correctly by football players, because in Dribbling the ball can easily pass the opponent, so it is very important to improve Dribbling's ability to play football. These abilities can only be improved if the student already has a supporting physical condition. A person's dribbling ability will work well if the player's physical ability and good technique (Sahran et al., 2019). Dribbling movement is a movement that can function to change direction, besides that it can also be used as a movement that can protect the ball which is supported by good flexibility and agility (Basrizal et al., 2020). However, in doing a dribbling is not only flexibility and agility, there will be other components such as patching, technique, coordination, strength, endurance, speed and good facilities and infrastructure supported by exercises made by a coach to improve a player's dribbling ability (Akmal & Lesmana, 2019). In line with that opinion according to (Ridwan & Hasyim, 2020) There are several physical competencies that must be mastered to do dribbling properly such as balance, coordination, speed, flexibility, agility, endurance and strength that must be properly strengthened. In line with that, what is no less important to do dribbling is eye-foot coordination and agility in the legs so that a player can maintain his balance well (Sakti, 2017). However, the most important physical component element in dribbling is agility. (Herman & Hasbillah, 2022).

Based on the results of observations made by the author on the students of Smpn 2 Liwa, the author did a game with his own colleagues, it turns out that there are still some movements that are not optimal. For example, when doing dribbling movements, some students still do not have maximum movement, both moving right and left to avoid their opponents and also slow to move the ball from the right foot to the left foot so that the ball is easily released. Along with motor development in adolescents, special and in-depth countermeasures are needed (D. Putra et al., 2022). When doing Dribbling style, their gaze is not centered and only fixed on the ball as well as the lack of skill in passing the opponent. It can be seen that when in the field, some students have difficulty in passing opponents which is due to the lack of agility and flexibility they have. Based on the description above, the researcher is interested in conducting a study on, "The Contribution of Agility and Flexibility to dribbling skills in Extracurriculars".
2. METHOD

2.1 Participants

In the study using The population is a student of Smpn 2 Liwa Football Extracurricular is as many as 30 male students. In a research process, it is not necessary for the entire population to be studied, but it can be done on a part of the total population so the sample of this study is a total sampling of the total number of Football Extracurricular students of SMPN 2 LIWA is as many as 30 male students.

2.2 Research Design

Research design is needed in a study because research design can be a clearer handle in conducting research. There are two variables in the study, namely bound variables and free variables. In this study, the variables were bound, namely the results of dribbling the ball in football games and the free variables, namely agility and flexibility. Analyzed using pearson product moment analysis Discusses The contribution of variables bound to two or more free variables. In accordance with the title of this study to find out the existence of contributions. Contribution of agility and flexibility to dribbling skills in football extracurriculars at Smpn 2 Liwa.

2.3 Instruments

This study uses a one-shot-model approach, which is an approach that uses one-time data collection. Measured tests and measurements cover agility, flexibility and dribbling with a validity value of 0.67, and test reliability of 0.79.

2.4 Procedures

Testing measurement data related to research results aims to help the analysis to be better. The data that needs to be collected uses the survey method with test techniques, data collection is carried out by providing tests and measurements through the survey method, namely researchers observe directly the implementation of tests and measurements in the field. The data used in this study is a measurement of Agility and Flexibility to Dribbling Skills in Football Extracurriculars at Smpn2 Liwa Lampung Barat.

2.5 Data Analysis

Data analysis techniques in this study with several tests such as normality test, data homogeneity test, linearity test and product moment correlation test. The analysis technique used in this study is a simple linear regression analysis followed by looking for the contribution of each predictor to non-free variables.

3. RESULTS

In the study conducted with the subject of football extracurricular students of SMPN 2 Liwa was as many as 30 male students. In this study, the data in question is data obtained using survey methods with data collection techniques using tests and measurements. The data in this study consisted of agility, flexibility and dribbling skills in football extracurricular students of SMPN 2 Liwa. The measurement data can be seen in the following table:
Table 1.

Test and Measurement Results Data

<table>
<thead>
<tr>
<th>No.</th>
<th>Result</th>
<th>Agility</th>
<th>Flexibility</th>
<th>Dribbling</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Sample</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>2.</td>
<td>Average</td>
<td>20,53</td>
<td>32,23</td>
<td>24,78</td>
</tr>
<tr>
<td>3.</td>
<td>&lt; Average</td>
<td>12</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>4.</td>
<td>&gt; Average</td>
<td>18</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>5.</td>
<td>Standard Deviation</td>
<td>1,72</td>
<td>4,75</td>
<td>2,71</td>
</tr>
<tr>
<td>6.</td>
<td>Minimal</td>
<td>17,90</td>
<td>24</td>
<td>20,90</td>
</tr>
<tr>
<td>7.</td>
<td>Maximal</td>
<td>25,22</td>
<td>39</td>
<td>32,40</td>
</tr>
</tbody>
</table>

The results of research and measurements on the agility variable of football extracurricular students of SMPN 2 Liwa showed that the average agility was 20.53 seconds, students who were below the class average were 12 students, players who were above the class average were 18 students, the standard deviation of agility was 1.72 seconds, the lowest agility (fastest) was 17.90 seconds and the highest agility (late) was 15.22 seconds.

The Normality Test of the data used in this study used the liliefors test with test criteria if the value of Lhitung< Ltabel, then the data is normally distributed, and if vice versa, the data is not normally distributed. A summary of the results of data analysis can be seen in the table below:

Table 2.

Normality Test

<table>
<thead>
<tr>
<th>Data</th>
<th>L_count</th>
<th>L_table</th>
<th>Criterion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agility</td>
<td>0,158</td>
<td>0,161</td>
<td>Normal</td>
</tr>
<tr>
<td>Flexibility</td>
<td>0,136</td>
<td>0,161</td>
<td>Normal</td>
</tr>
<tr>
<td>Skills</td>
<td>0,141</td>
<td>0,161</td>
<td>Normal</td>
</tr>
</tbody>
</table>

The homogeneity test is carried out to see if both groups have the same variance, To find out which variables have the same variance, the test carried out is by comparing the largest variance and the smallest variance of each group so that the F_count value is obtained with the test criteria if the F_count value is < F_table then both data are homogeneous or come from the same variance. It turns out that the test results are obtained F_count < F_table then the two variances are homogeneous. The following data homogeneity test results are presented in the following table:
Table 3.

**Homogeneity Test**

<table>
<thead>
<tr>
<th>Variable</th>
<th>$F_{\text{count}}$</th>
<th>$F_{\text{table}}$</th>
<th>Criterion</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1 and Y</td>
<td>1,000</td>
<td>1,861</td>
<td>Homogen</td>
</tr>
<tr>
<td>X2 and Y</td>
<td>1,000</td>
<td>1,861</td>
<td>Homogen</td>
</tr>
<tr>
<td>X1 and X2</td>
<td>1,000</td>
<td>1,861</td>
<td>Homogen</td>
</tr>
</tbody>
</table>

Table 4.

**Data Analysis of The Contribution of Agility and Flexibility to Dribbling Ability**

<table>
<thead>
<tr>
<th>No.</th>
<th>Result</th>
<th>Agility</th>
<th>Flexibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Correlation Coefficient</td>
<td>0.708</td>
<td>0.531</td>
</tr>
<tr>
<td>2.</td>
<td>Coefficient of Determination</td>
<td>0.502</td>
<td>0.281</td>
</tr>
<tr>
<td>3.</td>
<td>$t_{\text{count}}$</td>
<td>5.309</td>
<td>3.312</td>
</tr>
<tr>
<td>4.</td>
<td>$t_{\text{table}}$</td>
<td>2.048</td>
<td>2.048</td>
</tr>
<tr>
<td>5.</td>
<td>Correlation Criteria</td>
<td>Strong</td>
<td>Enough</td>
</tr>
<tr>
<td>6.</td>
<td>Conclusion</td>
<td><strong>Significant</strong></td>
<td><strong>Significant</strong></td>
</tr>
</tbody>
</table>
Figure 1. Agility Measurement Results

![Agility Measurement Results Diagram]

Figure 2. Flexibility Measurement Results

![Flexibility Measurement Results Diagram]
Figure 3.

Dribbling Measurement Results

4. DISCUSSIONS

Skill plays a very important role in the game of football, especially not to be ambushed by the opponent when dribbling or put the ball into the opponent's goal to score points (Muslim, 2021). According to (Gunawan et al., 2016), agility refers to a person's ability to quickly and accurately change direction during movement without losing balance. Agility refers to the degree of flexibility, without good flexibility one cannot move (Akbari et al., 2019). In addition, the balance factor affects a person's mobility (Purnomo & Irawan, 2021). Speed is the ability of a person to move quickly, characterized by a short time (Mudian & Prasetiyo, 2023). When playing soccer, especially when it comes to basic soccer skills, the speed of movement has a significant influence on the flow of the game. One of them is the ability to drip. When the player's speed element is good, the player can dribble well without the loose ball or the opponent cannot control the ball, and he is efficient and effective in aiming (Hendri et al., 2022).

The results of the study and measurements on the agility variable of football extracurricular students of SMPN 2 Liwa showed that the average agility was 20.53 seconds, students who were below the class average were 12 students, players who were above the class average were 18 students, the standard deviation of agility was 1.72 seconds, the lowest agility (fastest) was 17.90 seconds and the highest agility (late) was 15.22 seconds. Measurement data on the flexibility variable of football extracurricular students of SMPN 2 Liwa showed that the average flexibility was 32.23 cm, players who were below the class average were 13 players, players who were above the class average were 17 players, the standard deviation of flexibility was 4.75 cm, the lowest flexibility value was 24 cm and the highest flexibility was 39 cm. In the measurements on the dribbling skills variable of SMPN 2 Liwa football extracurricular students
showed that the average dribbling skills of SMPN 2 Liwa football extracurricular students was 24.78 seconds, players who were below the grade average were 12 players, players who were above the class average were 18 players, the standard deviation of dribbling skills of SMPN 2 Liwa football extracurricular students was 2.71 seconds, the lowest (fastest) dribbling skills of SMPN 2 Liwa football extracurricular students are 20.90 seconds and the highest dribbling skills (late) of Liwa Junior High School football extracurricular students are 32.40 seconds.

Based on the results of the analysis of agility data obtained a calculated value of \( > t_{table} (5.309 > 2.048) \) then \( H_0 \) was rejected, meaning that partially there was a significant contribution to the agility variable to the dribbling ability of football extracurricular students of SMPN 2 Liwa and obtained a correlation or relationship value of 0.708 (strong) and explained the magnitude of the percentage of influence of free variables on bound variables called the coefficient of determination which is the result of the strengthening. From the correlation value, while the value of the coefficient of determination \((R^2)\) is 0.5012 which means that agility to dribbling skills has a contribution of 50.12%. As well as the analysis of data on the flexibility of obtaining a calculation value of \( > t_{table} (3.312 > 2.048) \) then \( H_0 \) was rejected, meaning that partially there was a significant contribution to the flexibility variable to the dribbling ability of football extracurricular students of SMPN 2 Liwa. Based on the results of the correlation value or relationship, a value of 0.531 (sufficient) was obtained and the amount of contribution was seen in the result of the coefficient of determination \((r^2)\) of 0.2819, which contains the understanding that the flexibility to dribbling skills is 28.19%.

The results of the contribution analysis between the two free variables and bound variables in hypothesis testing are in line with research (Putra & Gazali, 2017) which explains that ball dribbling is a movement technique in football games that exerts the whole body to move quickly to pass opponents so that one of the physical components that play a role in dribbling is agility and flexibility which together have a relationship or contribution. Another researcher revealed by (Daryanto & Hidayat, 2015) that athletes who have good agility will be easy to place positions and maintain good balance and be able to perform varied dribbling movements. In addition, this study also shows flexibility contributes to the dribbling ability of the ball. This opinion is reinforced by (Irianto, 2018) that flexibility is the ability of joints to perform movements with a wide range. Therefore, when the individual dribbles the flexibility is needed by the body when changing direction, turning the body or turning the direction. A player who has good flexibility will move easily, twisting past opponents quickly.

The study, which was designed to find the contribution between agility and flexibility to the dribbling ability of football extracurricular students of SMPN 2 Liwa used a correlational descriptive methodology from the above variables. In this study, the ability to dribble the ball was used as a dependent variable and agility and flexibility as a free variable (independent variable). The results of the contribution analysis between the two free variables and bound variables in hypothesis testing need to be further studied by providing interrelationships between the analysis results achieved and the theories underlying this research. This explanation is necessary so that it can be known the suitability of the theories put forward with the results of the research obtained. The results obtained when associated with the thinking framework and the underlying theories, basically the results of this study support the existing theory.

Basically, sports require an element of flexibility, because flexibility indicates the quality that allows a secretary to move as much as possible according to the possibility of
motion. That quality allows muscles or groups of muscles to lengthen and shorten and make the most of the joints. Flexibility is also determined by the elasticity or absence of muscles, tendons and ligaments. So people who have elastic muscles have good flexibility. Therefore, it is important for a coach to provide a variety of exercises that are able to increase agility and flexibility to increase the dribbling ability of the ball in athletes.

5. CONCLUSION

Thus it is clear that flexibility plays an important role in learning the dribble skills of the ball and can optimize other physical abilities. Even flexibility is an excellent element in determining the success of agility. On the other hand flexibility also largely determines the quality of a person's ball dribble movement. Some of the factors that determine the ability to play the ball are speed, endurance, agility, flexibility, coordination of movements, student mentality, training programs, infrastructure. The factors that most influence the dribble ability of the ball are agility and flexibility. From the results of the analysis that have been found, it can be concluded that there is a significant contribution between agility and flexibility to the dribbling ability of football extracurricular students of SMPN 2 Liwa. The level of agility and flexibility that athletes have will certainly be better if they do not ignore the factors that can affect the dribble ability of the ball.

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