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The Relationship of Dynamic Balance with Football Skill : A Correlation Study in Under-15 Football Athletes

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Article History

Abstract

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Keywords: Dynamic Balance; Footbal; Skill. Football skills are one of the fundamental aspects that must be possessed by football players. In addition, to support football skills, football players must be equipped with the ability to be in good physical condition. Based on theoretical studies, movement in football is dominated by dynamic movements so that dynamic balance is one of the important aspects in supporting football skills. The purpose of this study was to determine the relationship between variables, dynamic balance and football skills. This research approach is quantitative with correlational type. Populasi penelitian ini adalah Pemain Junior Klub Persati Aceh Tamiang yang berjumlah 36 atlet (total sampling). Teknik pengumpulan datanya adalah sebagai berikut: (1) keseimbangan dinamis menggunakan "Uji Keseimbangan Bass Modifikasi", (2) keterampilan sepak bola diukur menggunakan tes David Lee. The data collection techniques were as follows: (1) dynamic balance using the "Modified Bass Balance Test", (2) football skills were measured using David Lee test. Data analysis was carried out using simple correlation analysis techniques and multiple correlations. Based on the results of data analysis, it can be concluded that: (1) there is a significant relationship between dynamic balance and football skills (r= 0.65), and dynamic balance contributes 42.25% to football skills.

How to Cite

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INTRODUCTION

Football skills are one of the important factors in supporting the performance of a football player, the quality of football skills also affects the performance of a team. In the game of football there are various techniques and movements that can be done by players.

in the game of football, various combinations of techniques and movements performed by players greatly affect the quality of the game as a whole, but lack of practice will be a big problem for players to improve their abilities (Young et al., 2021). Each type of football skill requires the support of other skills to become a good skill.

In addition to the talent of players, there are many factors that can be trained and developed that can affect the quality of football skills.

One of them is the physical condition factor, one of the important physical condition factors in the game of football is the balance. related to balance, posture factors and talent from birth affect balance, many football players are good at agility but not necessarily good at balance.

Based on the author's observations during football matches or training, many players have good agility when dribbling, but because the balance of these players is bad, the ball will be easily snatched by the opponent. Football players who have good balance can make better movements because they can control every movement they make and can avoid the risk of slipping or losing balance (Oleksy et al., 2021).

Balance is very important for a football player, in a football game the dynamic balance function is more dominant than in static balance, because football is a type of sport that is dominated by dynamic movements (Chaari et al., 2021). Dynamic balance is the ability to maintain the body in a controlled manner even when in motion. Balance training in athletes has been shown to reduce the risk of falling and thus prevent injury. A good balance training program can reduce the risk of injury, so athletes can display maximum performance when competing. training "change of direction" is one of the exercises that contribute to the dynamic balance of football players. "Change of direction" exercises are able to efficiently support dynamic as well as static balance (Sariati et al., 2021).

Balance is a component that affects the implementation of football skill movements both from the moment of receiving the ball until the ball is passed back to other players, which is to produce good dribbling movements from the preparation, execution, and final movement stages and continuously until the ball is given to a friend or friend. off the feet. So to be able to produce good and effective dribbling skills, good dynamic balance is needed as well (Bukowska et al., 2021). With these physical components, players can carry out dribbling movements properly and quickly according to the stage of the dribbling movement.

The failures that are often experienced by football players, especially junior players, are influenced by several factors, including the lack of individual skills and even individual skills indicated in dribbling skills in football games, even though dribbling is a basic skill in football. The ball is successfully dribbled past individual guard, is a sign that the player has good potential as a football player (Loftesnes et al., 2021). Mastery of dribbling skills is one of the factors determining the quality of appearance in playing football. Dribbling in football is something that needs attention.

Dribbling is determined by good ball control, i.e. the ball must be as close as possible to the feet to be carried and processed. To be able to improve dribbling skills in football games, relevant physical skills are needed in carrying out dribbling movements (Formenti et al., 2021). Besides, there needs to be a good balance in an effort to control or control the body when controlling the ball. When dribbling, ball players need good agility, cunning players are players who are able to move without losing their balance and awareness of their body position (Villaseca-vicuña et al., 2021). Balance is a person's ability to maintain body systems both in a static position, especially in a dynamic position. Balance is also very important in carrying out a movement because with good balance, a person is able to coordinate movements and in some dexterity. So, to maintain balance when playing football, it is necessary to have good motion control.

The most basic thing in dribbling is how a person is able to perform good dribbling techniques quickly and in balance, besides that a player must also be able to coordinate between one basic technique with another, so that between one basic technique and another can be carried out in harmony. This is what happens a lot on the field, where the average player is only able to dribble in a very short time, easily grabbed by opposing players so that the percentage of being in the opponent's attack area is very small. This is thought to be influenced by the poor dynamic balance (Sulistiyono et al., 2021).

METHODS

This study uses a quantitative approach with the type of correlation research, this study aims to calculate the relationship between two variables. The design of this study is divided into two groupings, namely the dynamic balance test as (variable X1) and the test of playing football skills as (variable Y), variable X data can be correlated with data variable Y. The research constellation can be seen in **Figure 1**.



The sample of this study was the junior players of the Persati Football Club, Aceh Tamiang Regency, aged under 15, totaling 36 players. The measurement instrument used for each variable is (1). Dynamic balance using the "Modified BASS Balance Test" (Burhaein et al., 2020), (2) Football skills using "David Lee Tes" (Murr et al., 2021). Analysis of research data using the product moment correlation formula which aims to find out the correlation coefficient between the two variables.

$$r_{xy} = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{[N\sum X^2 - (\sum X)^2][N\sum Y^2 - (\sum Y)^2]}}$$

RESULTS AND DISCUSSION

Based on the calculation of the research data for the dynamic balance variable, a frequency distribution table was compiled which can be seen in **Tabel 1**.

Tabel 1. Frequency distribution of dynamic balance values

Interval	Bsolute Frekuency	Relative Frekue- ncy (%)
26.99-31.99	2	5.56
32.99-37.99	2	5.56
38.99-43.99	2	5.56
44.99-49.99	12	33.33
50.99-55.99	9	25.00
56.99-61.99	6	16.67
62.99-67.99	3	8.33
Total	36	100

Based on the frequency distribution **Tabel 1**, the histogram graph of the research data for the dynamic balance variable can be seen in **Figure 2**.





Based on the calculation of the research data for the football skill variable, a frequency distribution table was compiled which can be seen in **Tabel 2**.

Tabel 2. Frequency distribution of Football Skill values

Interval	Absolute Frek- uency	Relative Frek- uency (%)
26.99-33.99	2	5.56
34.99-41.99	3	8.33
42.99-49.99	12	33.33
50.99-57.99	13	36.11
58.99-65.99	4	11.11
66.99-73.99	2	5.56
Total	36	100

Based on the frequency distribution **Tabel 2**, the histogram graph of the research data for the football skill variable can be seen in **Figure 3**



Figure 3. histogram of football skill data

Based on research data and research data analysis, then the author interprets these data. Analysis of correlation data showed that the correlation between X and Y was 0.65, with hypothesis testing where tCount=4.987>ttable=1.691 showed that there was a significant relationship between Dynamic Balance and football Skills. Based on theoretical studies, balance is one of the important components that must be mastered by football players, where a football player must be able to maintain his balance in various circumstances in order to remain balanced (Stankiewicz et al., 2021).

The benefits of balance training for football players are awareness of motion, prevent injury, make it easier to train technique and agility of motion. This is in line with the principle of dribbling in football where balance has a fundamental influence on football skills (Akbari et al., 2021). Previous research has shown that static and dynamic balance is an important factor in enhancing sports performance. Previous studies have shown that dynamic balance is directly related to exercise performance. In addition, some researchers have also found that football players Donny Pratomo, Et al. / Journal of Physical Education, Sport, Health and Recreation (10)(3)(2021) 105 - 108

have a better and more stable dynamic balance than non-athletes or beginners (Reisi et al., 2021).

To improve dynamic balance in athletes, it can be done by focusing on strengthening the popliteus muscle, the form of exercise is in a standing position on one leg, move the lower leg simultaneously with the resistance band.. (Wilczynski et al., 2021).

CONCLUSION

Based on the analysis of research data and hypothesis testing, it can be concluded that there is a significant relationship between dynamic balance and football skills with a correlation value (r = 0.65, dynamic balance contributes 42.25% to football skills.

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