

# Contributions Vo2max on the Dribbling Agility of the Football Club Players

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Abstract— The method used in this study is quantitative with a correlational approach that aims to see the weight or closeness of the relationship between variables without giving treatment. From the normality test on the VO2Max Lo = 0.1772 <Lt = 0.1808, it is said to be normal, and on the test of agility dribbling ability Lo = 0.1538 <Lt = 0.1808, it is said to be normal. Hypothesis test results of statistical analysis using simple product-moment correlation analysis obtained r count 0.62642> r table 0.404, meaning that there is a significant relationship between VO2Max on the agility of dribbling soccer player SSB Merpati Hiang. It can be concluded that there is a contribution of VO2Max to the ability of dribbling agility by 39.24%.

Keywords— VO2MAX, Agility of Dribbling

#### I. INTRODUCTION

One of the efforts to improve the quality of quality Indonesian human resources is through sports, this is in accordance with the objectives of the national sports listed concerning the national sports system which reads: "Maintaining and improving health and fitness, achievements, human qualities, instilling moral values and noble morals, sportsmanship, discipline, strengthening and fostering national unity, uniting national security and enhancing national dignity, national dignity and honor "[1].

Based on the aforementioned elements, in the end there can be an increase in sports achievements that can arouse regional pride, national and national endurance in general. Therefore, the development and development of sports need to get good attention through systematic planning and implementation in regional and national development.

From the description above it appears that among the various goals and objectives of Indonesian sports activities one of them is fostering achievement. This means that sports activities in Indonesia are not only for physical fitness or recreation, but must also think towards improving sports achievements in order to improve the nation's name in the international arena.

To achieve high sports achievements in sports can be done through fostering the achievements of talented athletes evenly throughout the country. Because through fostering athlete achievement seen from his continuing interest, programmed and integrated will produce athletes who excel. Athlete achievement is a pride that is not only for athletes but for family, community and country.

In Indonesia soccer is one of the many sports that are developed and developed, this development is marked by the birth of associations or clubs and soccer schools (SSB) in various regions in the country, not only in cities but has spread to the villages. So now the game of football can be regarded as a people's sport. Along with the development, there will be seeds of soccer players for the future.

In addition, a soccer player must have a good mental quality, when based on opponents the player must be able to hold his emotions, and a soccer player must have high motivation to become a great soccer player. If some of the above are collaborated with good game tactics, then a soccer player will be able to carry out the idea of a good soccer game in an effort to win the game to achieve high performance.

To be able to do this, a soccer player must have good technical, physical, tactic, and mental components, [who said that "the four components namely the physical condition component, the technical skill component, the tactic component and the mental component are needed by every athlete in both individual and team sports to reach the top achievements of a sport " [2].

The nature and situation of the game that refers to agility and skills to outperform opponents, running throughout the game takes place, speed, agility, and kicking power, must be supported by elements of physical conditions, especially VO2max prime. A player who has good agility will be able to adjust to the ever-changing ball movements. When the player loses the ball, then with the ability and agility, it is more possible for him to get the ball back, of course with effort and hard training.

Talking about the components of physical conditions, in soccer games, VO2max is one component of physical conditions that is very important in soccer games. This is certainly clearly necessary because together we know that this soccer game lasts for 90 minutes. This means that soccer players must be able to survive within 90 minutes to be able to follow the game.

Thus, in basic technical mastery training, especially when dribbling, the element of agility and VO2max should receive special attention. Because the exercise is an overall movement that activates the ankles and hips as well as the endurance of the player. The agility in shaking the ball causes the player to save energy.

At present, in the jambi area, especially in the Kerinci regency the development of football is very rapid. This is proven by the number of clubs and Football Schools (SSB) popping up including IPPOS, PSTK, PSPT, PS Hiang Karya, Hiang Sakti Fc and others. From this it appears that in Kerinci District there are already many clubs and



football schools that are organized in an organized manner which at the end of the results of the formation of each club is expected to produce quality football players who can support good performance in the club each of them can represent Indonesia in the international arena.

SSB Merpati Hiang is one of the soccer schools in Kerinci Regency under PSSI. SSB Merpati Hiang was founded in 1998. Currently Merpati Hiang's football school is chaired by Reki Asdeni and Secretary of the Kasmir brothers and trained by brothers Muhammad Amin and Heri Kiswanto, S.Pd. SSB soccer player Merpati Hiang consists of a combination of junior and senior players who are aged 20-24 years, totaling 24 players. The presence of Merpati Hiang SSB is also expected to produce players who will later be proud of Merpati Hiang's name both in Kerinci Regency itself and to the national arena.

But the fact that happened in the last few years is the lack of achievement produced by SSB Merpati Hiang. The achievements of the SSB soccer player Merpati Hiang today are very much different from those produced a few years ago. From observations made by the authors in the field, the low achievement of SSB soccer player Merpati Hiang is caused by many factors. Among these factors include mastery of technique, physical condition, tactics / strategy and mental, as well as VO2max players, many players are not able to play until the final whistle is sounded.

Considering the importance of dribbling agility in a soccer game, it needs to be investigated from several factors that can affect the agility of dribbling, including the player's VO2max. For this reason, researchers are very interested in bringing up a study with the title "The Contribution of VO2Max to the Agility of Football Player Dribbling in Merpati Hiang, Sitinjau District, Kerinci Regency."

## II. RESEARCH METHODOLOGY

Based on the problems that will be discussed, "the research conducted is quantitative with a correlational approach" [3]. that aims to see the weight or closeness of the relationship between variables: the VO2Max independent variable with the dependent variable agility dribbling SSB soccer player Merpati Hiang. Thus this study will reveal how much the contribution of VO2Max to the agility of the SSB soccer player dribbling.

The research site was conducted in the soccer field of SSB Merpati Hiang, Sitinjau Laut Subdistrict, Kerinci Regency, and the time of the study was approximately 2 weeks in February and March 2016 starting on February 2, 2016 from 15:00 WIB until completion.

the population used is the Merpati Hiang SSB soccer player who is still actively participating in training and is registered as a Merpati Hiang SSB soccer player in 2015, amounting to 24 people consisting of a combination of senior and junior players aged between 20-24 years. The sampling technique in this study is total sampling, where all populations are sampled as many as 24 samples.

To get data on VO2max endurance and agility of dribbling SSB soccer player Merpati hiang, the instruments

used in this study were through the MFT or Bleep Test and measurement tests and the dribbling test (Zig-Zag).

## III. RESULTS

From the results of VO2Max Traffic Test measurements conducted on 24 SSB Merpati Hiang Football Players, the highest score was 43.6 and the lowest score was 27.2, while the range (measurement distance) was 16.4. Based on the group's data the mean count is 33.21 and the standard deviation (standard deviation) is 5.019, it can be concluded that of the 24 people of Merpati Hiang SSB Football Players, who have the results of the VO2Max class interval data 27.2 - 30.48 there were 9 people (37.50%), interval classes 30.49 - 33.77 were 8 people (33.33%), and interval classes 33.78 - 37.06 were 2 people (8.33%). While the interval classes 37.07 - 40.35 are 1 person (4.17%) and the interval class 40.36 - 43.64 is 4 people (16.67%).

From the results of the measurement of dribbling agility test conducted on 24 Football Players in Merpati Hiang SSB, the highest score was 30.8 and the lowest score was 23.89, while the range (measurement distance) was 6.91. Based on the group data, the mean count is 26.66 and the standard deviation (standard deviation) is 1.931, it can be concluded that of the 24 soccer players, who have the results of the agility data of dribbling class intervals of 23.89 - 25.27 is 7 people (29%), class intervals 25.28 - 26.66 are as many as 7 people (29%), and class intervals 26.67 - 28.06 are as many as 5 people (21%). While the interval classes 28.07 - 29.45 are 2 people (8%) and the interval classes 29.46 - 30.84 are 3 people (13%).

The results of the correlation analysis between VO2Max (X) with dribbling agility (Y) soccer player SSB Merpati Hiang Sitinjau Laut Subdistrict Kerinci Regency is obtained rount 0.62642> rtable 0.404, meaning that there is a significant (meaning) relationship between VO2Max and Dribbling agility Merpati Hiang SSB soccer player, Sitinjau Laut District, Kerinci Regency.

# IV. DISCUSSION

The hypothesis proposed in this study is VO2max contributes to the agility of the Dribbling Football Player SSB Merpati Hiang. Based on the results of data analysis, it turns out VO2max has a significant contribution to the agility of dribbling empirically accepted truth. Furthermore, VO2max contributed 39.24% to the agility of dribbling soccer sports. It means that the better VO2max, then the better the agility of dribbling SSB Merpati Hiang Football Players.

From the description above, it is clear that VO2Max has quite a large contribution to Dribbling Agility made by SSB soccer player Merpati Hiang. It is expected that good VO2Max can improve the quality of athlete performance. A good VO2Max can also improve the physical fitness of athletes and can improve the physical condition of athletes so that they can last longer in the match. If VO2Max owned by the players is less meaningful in this case the physical fitness of the player decreases so that the player cannot last long enough in the match. This can affect the tempo of agility in dribbling, according to Stalin in "the



greater the aerobic capacity will be the greater the ability of a person to carry a heavy workload and will more quickly recover physical fitness after the heavy work is completed because the volume maximal oxygen is one of the important factors to support athlete achievement [4]". The importance of VO2Max when conducting dribbling agility, also seen when carrying or moving the ball from one place to another, by the way the ball continues to roll on the field, without a good VO2Max where maybe a player can pass an opponent with agility dribbling a ball good, or move the direction of movement to approach the opponent's goal area with the ball still well controlled

## V. CONCLUSION

Based on the results of the research described in the previous chapter, it can be concluded that the sport of soccer really needs VO2max because in this sport a lot of motion activities are carried out continuously in a long

period of time. As for the acquisition of VO2max level figures owned by SSB soccer player Merpati Hiang, Sitinjau Laut District, Kerinci Regency has an average of 33.21 cc / kg BB / Minute. While the figures for the level of agility of dribbling SSB Merpati Hiang soccer players in the Sitinjau Sea District of Kerinci Regency had an average of 26.66 seconds, and VO2max contributed 39.24% to the agility of dribbling of SSB Merpati Hiang soccer players in Sitinjau Laut District Kerinci.

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