

Endurance Training Using Small-Sided Games

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Abstract

This study aimed to determine the level of endurance effort (VO2Max) of Siliwangi Soccer School (SSB) students through small-sided games. The reviewer used a descriptive quantitative study method, with the population in this study consisting of SSB Siliwangi Cimahi students. The sampling method is applied. The reviewer employed deliberate sampling as the sampling strategy for this study. This study's sample includes up to 20 SSB Siliwangi students. The instrument in this study is the MFT (Multistage Fitness Test) or Bleep Exam. The data obtained will be analyzed using the average value, the highest score, the lowest value, by calculating the hundred students of the Siliwangi soccer school who have a good category of 15% or as many as 3 students. Siliwangi soccer school students who have a simple category are 40% or as many as 8 students, Siliwangi soccer school students who have a less category are 35% or as many as 7 students. Siliwangi soccer school students who have a very low category as much as 10% or as many as 2 students. So it can be concluded that the VO2 max level profile of the Siliwangi soccer school students is in the "MEDIUM" category with an average VO2 max level of 39.21.

Keywords: VO2Max Ability, Soccer

I. INTRODUCTION

Soccer is an incredible sport that crosses barriers of race, age, wealth, gender, and religion. Soccer is the world's most phenomenal sport. There is no other sport that is better than soccer. There are numerous reasons why soccer is as popular as it is today. In addition to being a component of regional prestige, the prestige of a group, or the prestige of an institution, football is also a very inexpensive, lively, attractive, modern, and interesting spectacle that deserves to have its development watched closely. A soccer match consists of two teams, each with 11 players, and two halves of 45 minutes. The game may be played with all body parts besides the two arms (hands). Every soccer match is refereed by a referee who has complete authority to enforce the game's regulations during his allocated game. (FIFA, 2015). In addition to eleven versus eleven players, a referee acts as a judge and is a must for official football matches (Pembinaan & Indonesia, 2017).

Physical condition plays an essential role in reaching peak performance (T. O. Bompá & Buzzichelli, 2018). The physical condition consists of inseparable components that cannot be improved or kept separately. A greater amount of endurance is a physical characteristic known as stamina (harsono, 1988). Players with excellent stamina will be great assets to the team. On the other hand, a player who is tired is extremely likely to lose focus and has a tendency for making simple errors that can be avoided before a game. Great skill is meaningless unless it is supported by great stamina (Scheunemann, 2012).

Technical and tactic errors often occur when stamina decreases. The way to measure a player's stamina is to measure the player's Vo2max. (Pratama & Kushartanti, 2019) explain that "Vo2max is the capacity of the human respiratory organs to inhale as much oxygen as possible

during physical activity" (T. Bompa & Buzzichelli, 2015). The intensity of a person's training to increase Vo2max is determined by the technique, method, and intensity of exercise used to calculate Vo2max, as well as the test equipment (Syaroni & Wijaya Kusuma, 2020).

Small-sided games are training variations that modify the 11-on-11 soccer match. Each team comprises multiple players on a smaller playing field. With fewer players on each team, each player will have more opportunities to play the ball in defence and attack. When there are too many players on the field or too many options or decisions to make, focus and performance can sometimes deteriorate. With fewer variables on the field, practice can lead to a more positive game (Clemente et al., 2014)(Doewes et al., 2020).

Small-sided game is a form of training that modifies the game of by limiting the number of players, the size of the field, and the time of the game. Possession games (possession) and smaller fields (Small sided games) with fewer players are excellent for developing tactical awareness and strengthening players' technical skills (Pembinaan & Indonesia, 2017). The activities involved in small-sided games are not dissimilar to those in traditional soccer matches. In many ways, matches involving two small teams (3 versus 3 to 7 versus 7) are more effective (A. Luxbacher Joseph, 2004).

There are several ways to convert more endurance into stamina: (1) increasing the intensity of endurance training, such as interval training with a higher intensity; (2) expanding running or swimming distances while focusing on a quick pace; and (3) strengthening the muscles needed for this work. . For athletes, the higher the endurance/stamina factor required, the higher the required VO2max number (James Tangkudung, 2006)(James Tangkudung, 2018). VO2max consumption is an important factor in supporting player performance.

Based on the findings that occurred in the field, researchers assume that students' physical conditions are not in compliance with the desired expectations; if this is allowed to continue, it will have an impact on the maximum achievement. As a result, if a kid wants to thrive at futsal, they must improve their aerobic endurance, something that has never been done before.

II. METHOD

The descriptive research method was used in this study. A descriptive study is a type of study that aims to methodically, objectively, and accurately characterize the facts and characteristics of specific populations or occurrences (P. Ahmadi, 2014). The population referred to in this study is comprised of 180 students from SSB Siliwangi Cimahi. The sampling technique employed is a purposive sampling technique, with students who participate in futsal extracurriculars serving as samples. The sample constitutes a portion or is representative of the population under study (Edwan et al., 2017). The samples in this study were 20 students of SSB Siliwangi. The instruments used in this study were tests used to measure VO2MAX levels as follows: To obtain information about VO2MAX levels of SSB Siliwangi Cimahi students, the instruments used in this study were tested and measured with MFT or Bleep check. Data analysis is the effort or process of transforming raw data into valuable information so that the characteristics of the data may be comprehended and used to solve problems, particularly research problems. This study employs the following data analysis method: 1. Calculation of the average value 2. Determination of the percentage.

III. RESULT AND DISCUSSION

Result

In this study, 20 students participated in a descriptive quantitative test on the Rajawali Cimahi field on September 5, 2022. The research findings obtained from the VO2Max ability as measured by the bleep test instrument or MFT (Multistage Fitness Test) were as follows:

Table 1. VO2Max Frequency Distribution

No	Category	Interval	Frequency	Percentage
1	Excellent	>55,9	0	0
2	Very Good	51,0 – 55,9	0	0
3	Good	45,2 – 50,9	3	15
4	Moderate	38,4 – 45,1	8	40
5	Low	35,0 – 38,3	7	35
6	Very Low	<35,0	2	10
Total			20	100

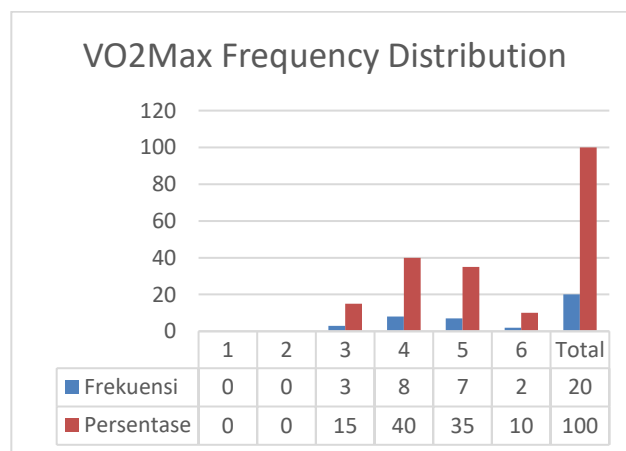


Figure 1. VO2Max frequency diagram results

According to the above table and figure, 40% of Siliwangi Football School students fall into the moderate category for VO2 Max, followed by 15% in the Good category, 35% in the low category, 10% in the very low category, 0% for both excellent and very good category. Based on the above table and figure, it can be observed that the majority of Palembang Muda football school students fall into the moderate category with a VO2 Max level of 40%, followed by the low category with 35%, the good category with 15%, the very low category with 10%, and the excellent and very good category with 0%. These results indicate that the VO2 Max level of the biggest soccer school students in Palembang is moderate.

Discussion

The majority of Siliwangi football school students appeared to be quite fit and healthy based on the observations of the researchers; they had a three-times-a-week training program in addition to a match test schedule and participation in competitions; however, the researchers did not observe any special exercises to train endurance levels. (VO2 Max).

In addition, the level of aerobic endurance fitness (VO2 Max) can be affected by food, rest, and lifestyle, as well as the environment. Food is one of the aspects that contribute to aerobic endurance fitness (VO2 Max). This will affect an individual's level of physical fitness. The body will be healthy and fit if it receives a sufficient amount of energy from its food intake. As a result of these conditions, it is necessary to increase the VO2 Max level of students so that those with a moderate VO2 Max can improve to be good, those with a good VO2 Max can become very good and excellent, and those with a low VO2 Max can become moderate or even good. Therefore, trainers must include VO2 Max-increasing exercises in their routine workouts and educate students and parents about the healthy nutrition.

IV. CONCLUSION

Based on the results of the study, the following was determined to be the VO2 Max Level Profile of young soccer school students in Palembang: Students in the good category at the Siliwangi soccer school represented 15% or as many as three students. Siliwangi soccer school students with a medium category of 40% or up to 8 students, and Palembang soccer school students

with a low category of 35% or up to 7 students. The percentage of Siliwangi football school students in the poor category is 10% or 2 students. This leads to the conclusion that the average VO₂ max level of Siliwangi soccer school students is 39.21, placing them in the "MODERATE" category

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