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Differences in the Effect of Training Methods and Training Motivation on VO2Max Capacity of Football Association Players in Sungai Bengkal Village, Tebo Regency

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ABSTRACT
The problem in this study is the low VO2Max ability of football union athletes in Sungai Bengkal Village, Tebo Regency. Many training methods can increase a soccer athlete's VO2Max. Among them are interval training methods and continuous training methods, as well as training motivation. The purpose of this study was to determine the effect of training methods and training motivation on VO2Max capacity of Football Association players in Sungai Bengkal Village, Tebo Regency. This research is a quasi-experimental research with a 2x2 factorial design. The population of this study were 62 players of the football association in Sungai Bengkal village. The sample in this study the researchers carried out by distributing a questionnaire of training motivation to the entire population with 30% taking high training motivation totaling 14 people, then taking 30% low training motivation totaling 14 people. So that the total sample is 28 people. The test instrument used was filling out a training motivation questionnaire using a Likers scale and a bleep test to measure VO2Max. Data analysis using ANOVA 2 Way, and performed with the Tukey test to test the hypothesis. The results of the data analysis showed that: (1) overall the interval training method was more effective than the continuous training method group F0A (5.6)> Ft (4.26). (2) there is an interaction between training methods and training motivation on VO2Max (52.011)> Ft (4.26) capacity. (3) in the high category training motivation, the extensive interval training method is more effective than the group given the continuous training method to the VO2MaxTh capacity (6,768)> Tt (1,171). (4) in the low training motivation category, the extensive interval training method was no more effective than the continuous training method group on the VO2Max capacity of Th (-3.431) <Tt (1.171).

Keywords: *interval training method, continuous training, training motivation, and VO2Max*

1. INTRODUCTION

Indonesia is one of the developing countries that is actively carrying out development in all fields. One of the fields that is no less important is the development of sports. Sports have now progressed very rapidly. Currently sports have entered all aspects of life such as industry, economy, education and so on.

One of the steps forward made by the Indonesian nation was the enactment of Law number 3 of 2005 concerning the National Sports System. The government's objectives in the sports sector are contained in chapter 2, article 4, which reads:

National sports are aimed at maintaining and improving health and fitness, achievement, human quality, instilling moral values and noble morals, sportsmanship, discipline, strengthening and fostering national unity and integrity, strengthening national resilience, and increasing the dignity and honor of the nation.

Based on the quote above, it can be argued that one of the goals the Indonesian nation wants to achieve is the emergence of national achievements in various sports. Achieving the goals of national sports will grow a generation that is physically and mentally healthy, fit, of quality, moral and has noble character, sportsmanship, discipline, which will have a positive impact on national development in other fields. In order for this to be achieved, it takes totality and good cooperation between the government, sports people and all levels of society.

Football as one of the sports favored by the community is expected to be able to realize the objectives of the national sports system law. Therefore, it is natural for the existence of football to receive government attention, so that achievements are always sought through learning and training at football schools

and clubs. Football's popularity is not only for the general public, but also belongs to the intellectual community.

The idea of the game of football is to put the ball into the opponent's goal as much as possible and defend the goal itself from being conceded to a minimum. For that football players must have good technique, physicality, tactics. Soccer technique consists of techniques using the ball and techniques without the ball. Techniques using the ball such as passing, dribbling, heading, and shooting must be well mastered, techniques are used to pass opponents and give the ball to friends to score goals against opponents. When performing techniques, physical elements such as speed, agility, strength, and endurance are required. In addition, players must have a good mentality, when physical contact with opponents is hard, they must be able to hold their emotions. If everything is well collaborated, a player will be able to achieve the idea of a football game in an attempt to win the match.

Performance improvement is supported by various factors such as physical condition, technique, tactics, and mental. If a player is not supported by his physical ability, it is likely that the player will not be able to survive the match, because the player experiences fatigue so that it will interfere with his technical ability. If physically and technically disturbed, then any tactics the coach uses will be in vain and mentally unyielding will become weak, resulting in less than optimal performance and performance. This means that the physical, technical, tactical, and mental conditions constitute a unity that determines each other in achieving maximum achievement.

Physical condition is one of the factors that determine achievement in sports, as well as in football. Physical condition is one of the important factors that determine the achievement of a football player. This physical conditioning ability is very useful in playing football, not only to maintain the ability to play for 2x45 minutes, but also to gain efficiency in the application of techniques and tactics.

To get good training results, of course with the right method, the trainer's ability is very important, knowledge and skills must be possessed, down to the details about the sport he is training in. This knowledge includes techniques, tactics, competition rules, training systems, training strategies, psychology, motivation, and other details about a particular sport. This, as stated by Hodgetts and Richard (2002), the motive is something that serves to improve and maintain and determine the direction of a person's behavior. While motivation is a motive that appears in behavior. Motive is what encourages someone to do an activity. Almost all human activities are motivated by certain motives that are very individualistic.

In Tebobanyak Regency there are soccer clubs including PSKS (Sungaibengkal Urban Village Football Association) Tebo Regency. Apart from the advantages and disadvantages based on the above factors, Tebo Regency PSKS consistently provides guidance and training to be able to improve the athlete's performance. PSKS Tebo Regency is one of the best clubs in the Tebo area, many achievements have been achieved such as the championship between clubs in Tebo Regency in 2008 and representing Tebo Regency in participating in inter-club tournaments throughout Jambi Province. In addition, there are many talented players produced by this club, even how many players are believed to be part of the Jambi Pra PON team in 2006.

Culub PSKS Tebo Regency is a football club that has been around for a long time in the Bengkal River, Tebo Regency. to educate and train young footballers to become reliable and accomplished athletes. But what has become reality lately is the PSKS Tebo football player cannot compete optimally in every match event. Based on the author's interview with the Tebo Regency PSKS trainer (coach Syafrial Boy) in the field, the achievements of the Tebo Regency PSKS Club were not too good and tended to decline. This can be seen in table 1 below.

Table 1. Data of PSKS Kab. Tebo

Year	championship	**Achievements**
2013	Liga Kab. Tebo	Juara
2014		Juara
2015		Juara
2016		Delapan Besar
2017		Semifinal
2018		Fase Grub

Source: Tebo District PSKS Trainer (Syafrial Boy)

From the data on the achievements of the Tebo Regency PSKS club in the table above, it can be seen that their best achievement was when they won consecutively in all age groups in 2013, 2014 and 2015 in 2016 they only reached the top eight round and 2017 became semifinalists. . However, in 2018 the decline in achievement was very clear, because they could not pass the group phase. Based on information from the Tebo District PSKS coach, one of the causes they experienced in carrying out the match was high fatigue which made it difficult for them to finish the match.

From the observations that the authors made in several trial matches and competitions that they participated in, it turned out that the problem of fatigue was very clear, which caused athletes to not be able to play well. The decline in conditions experienced by Tebo PSKS players was very visible when they entered the second round until the end of the match. According to the authors, this problem shows that the athlete's VO2max is still low for a soccer athlete.

In a football game, the VO2max capacity is one of the most important elements that a player has. With various activities carried out during the match, such as jumping, kicking, running, and so on, there will be a lot of oxygen consumption needed. With a high VO2max capacity, players are able to perform matches for 2x45 minutes well. As a comparison of the VO2 Max number or the maximum volume of O2 (oxygen) processed by the human body during intensive activities world players like Cristiano Ronaldo are in the range of 70 to 75. While Indonesian football player Evan Dimas in the U19 national team training, the VO2max test results reached 64.88. Meanwhile, the VO2max ability of Tebo PSKS football players reached 50% VO2max results of less than 32, 30% achieved 38-41 results, and 20% achieved 47 to more results as described by Tebo PSKS coach in the predicted VO2max results.

Based on the problems described above, it can be seen that one of the efforts needed to increase the capacity of PSKS players is to carry out training methods that are attractive and motivate athletes with the aim of increasing VO2Max. This is because VO2Max, which is often called lung-heart endurance (aerobic), is the functional ability of the lungs to supply oxygen for muscle work for a long time (Irianto, 2004: 27). This opinion illustrates the importance of VO2Maks in the game of football because it has a relatively long playing time, namely in general one soccer match is played in a normal time of 2 x 24 minutes. With such a long time, it would be impossible if a football athlete could maintain a consistent appearance in the match if he did not have a good VO2Maks.

However, according to the author's observations on several training sessions of Tebo PSKS players, the coach's selection of training methods and their application was not quite right. This is what the authors see from the method that is often given is the conventional method of running around the field, but it is not followed by an appropriate training program (duration, intensity, frequency, etc.) and it will end up boring the athlete. So, the fact is that the provision of this training method does not have such a good effect on increasing VO2max of Tebo PSKS athletes. There are actually many training methods that can increase VO2Max. However, in this study the researchers chose the extensive interval training method and the continuous training method which the authors deemed appropriate and expected to increase the VO2Max of football athletes, especially for Tebo Regency PSKS athletes. In preparing the training program, the author will pay attention to training principles such as exercise length (volume), exercise intensity, sets and reps (repetitions) for each set, recovery (rest period), and the frequency of exercise in a week.

In addition to choosing the right training method, according to the author, there are other factors that can indirectly affect the achievement of VO2max football athletes in exercising, namely training motivation. According to the theory, if motivation is good, the results of the exercise will usually tend to be good. Conversely, if motivation is low, the results of the exercise will tend to be low.

From the description above, it can be seen various reasons that motivated the author to conduct research on "the effect of training methods and training motivation on the VO2max capacity of Tebo PSKS players". With this research, it is hoped that it can have a positive impact in the form of increasing the VO2max capacity of PSKS players so that they can finish the match well and experience excessive fatigue. In addition, what is highly expected is an increase in performance so that it can compete at the city, provincial, and even national levels.

2. RESEARCH METHODOLOGY

A. Type of Research

This type of research is a quasi-experimental. The purpose of this study is to see the effect of training methods and training motivation on VO2max capacity of football players. To see the motivation to practice PSKS Tebo Regency used descriptive research with a quantitative analysis approach. After that, a 2x2 factorial design will continue Method practice (A) Motivation Practice (B) Method interval training (A1) Exercise method continuous (A2) total Motivation high training (B1) 7 7 14

Motivation low training (B2) 7 7 14
Total 14 14 28.

B. Place and Time of Research
a. Research Place

This research was conducted in the Tebo PSKS field, Tebo Ilir sub-district, Tebo Regency where the PSKS club did exercises.

b. Research time

This research was conducted from 14 September to 24 October 2020. The implementation time was carried out with a frequency of three times a week, namely Wednesday, Friday, and Sunday.

C. Population and Sample
1. Population

According to Sugiyono (2010: 117) "Population is a generalization area consisting of: objects / subjects that have certain qualities and characteristics that are determined by the researcher to be studied and then draw conclusions." In this study, the population was all PSKS football players in Tebo Regency, totaling 46 people, both senior and junior.

Table 2. Research population

No	Age	total (person)
1	14-16	22
2	17- 20	24
Total		46

Source: Tebo Regency PSKS Club

2. Samples

In selecting the sample in this study the authors conducted by distributing a questionnaire of motivation to practice to the entire population with 30% of high motivation being taken, amounting to 14 people, then taking 30% of low motivation to training totaling 14 people. So that my total sample is 28 people. These 28 people were divided into two groups to divide the high training motivation group amounting to 14 people and the low training motivation group amounting to 14 people. Then 14 people with high training motivation and 14 low motivation training were mached again to determine the cell data group. So that each cell gets 7 players.

Table 5. Number of Research Samples and Groups

D. Data Collection Techniques

The data needed in this study is the training motivation data and the VO2Max capacity of the soccer players selected as the research sample. The data sources for the two types of data needed above are the PSKS Tebo Regency players. To obtain the motivation to practice data, a training motivation test was carried out on the players selected as samples. To obtain the VO2max capacity data, the VO2max capacity test was used which was taken from the Center for Physical Quality Development (2009) and Verducci (1980).

The training motivation data was collected before the implementation of the VO2max capacity test. After the results of the training motivation test are obtained, then the modeling method is carried out to divide into four sample groups, by sorting the values of motivation to practice, highest to lowest data. As for how to classify groups using the percentage technique (post hoc blocking), namely: ranking the scores from the highest to the lowest, 30% of the order of the top ranking is called the high group, the lower ranking is called the low group. Then a drawing was carried out to determine two groups for the extensive interval training method with the continuous training method group.

The initial test was carried out in four groups for the extensive interval training method with high (A1B1) and low (A1B2) motivation categories, then two groups for the continuous training method with the high (A2B1) and low (A2B2) motivation category.

The final test was carried out after treatment was carried out to four groups, namely, two groups for the extensive interval training method with the high (A1B1) and low (A1B2) category of motivation, then two groups for the continuous training method with the high (A2B1) and low (A2B2) categories.

3. RESULTS AND DISCUSSION

A. Data Description
1. Data of VO2MAX Capacity Value Players in the Extensive Interval Method Training Group (A1)

The results of extensive interval method training were obtained in the interval class <35.0 with the lack of category (0%), in the interval class 35.0 - 38.3 with the less category of 4 (four) players (29%), in the interval class 38.4 - 45.1 with in the moderate category there were 3 (three) players (21%), in the interval class 45.2 - 50.9 with good categories as many as 7 (seven) players (50%), in the interval class 51.0 - 55.9 with very good categories none (0%), and in the interval class> 55.9 with no special category (0%).

2. Data Results Value VO2MAX Capacity Players Continuous Method Training Group (A2)

The results of continuous method training were obtained in the interval class <35.0 with the lack of category (0%), in the interval class 35.0 - 38.3 with the less category of 1 (one) player (7%), in the interval class 38.4 - 45.1 with the category while as many as 12 players (86%), in the interval class 45.2 - 50.9 with a good category as many as 1 (one) player (7%), in the

interval class 51.0 - 55.9 with a very good category none (0%), and Interval class> 55.9 with no special category (0%).

3. Data of VO2MAX Capacity Value for Group Players Who Have High Training Motivation (B1)

The results of the VO2MAX capacity value of the players in the high training motivation group were obtained in the interval class <35.0 with the lack of category (0%), in the interval class 35.0 - 38.3 with the less category of 1 (one) player (7%), in the interval class 38.4 - 45.1 with moderate category as many as 6 (six) players (43%), in the interval class 45.2 - 50.9 with good categories as many as 7 (seven) players (50%), in the interval class 51.0 - 55.9 with very good category not there is (0%), and in the class interval> 55.9 with a special category there is no (0%).

4. Data on the Value of Player VO2MAX Capacity in the Low Training Motivation Group (B2)

The results of the group of players with low training motivation were obtained in the interval class <35.0 with the lack of category (0%), in the interval class 35.0 - 38.3 with the less category of 4 (four) players (29%), in the interval class 38.4 - 45.1 with the moderate category as many as 9 (nine) players (64%), in the interval class 45.2 - 50.9 with a good category as many as 1 (one) player (7%), in the interval class 51.0 - 55.9 with very good category none (0 %), and in the interval class> 55.9 with no special category (0%).

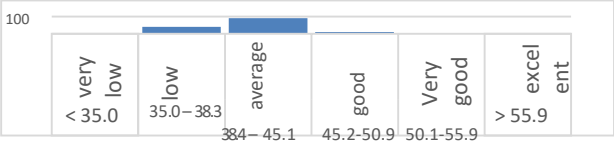

Figure 1. Histogram of VO2MAX Capacity Value of Players in the Group with Low Training Motivation (B2)

5. Data of VO2MAX Capacity Value Players of the Extensive Interval Method Training Group Who Have High Training Motivation (A1B1)

The results of extensive interval method training with the high training motivation group were obtained in the interval class <35.0 with the lack of category (0%), in the interval class 35.0 - 38.3 with the lack of category (0%), in the interval class 38.4 - 45.1 with moderate category does not exist (0%), in the interval class 45.2 - 50.9 with good categories as many as 7 (seven) players (100%), in the interval class 51.0 - 55.9 with the very good category none (0%), and in the class interval> 55.9 with no special category (0%).

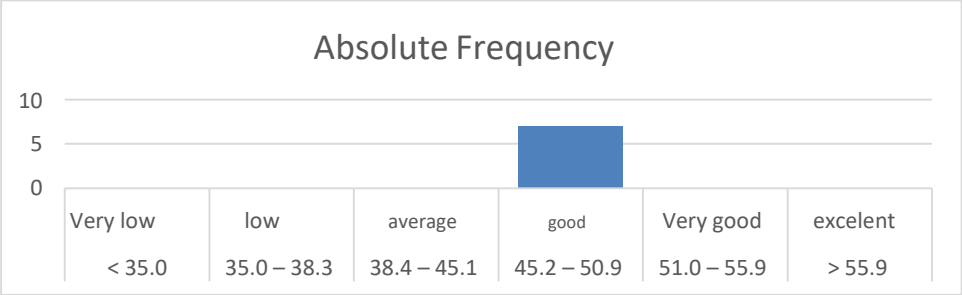

Figure 2. Histogram Data Results Value VO2MAX Capacity Players in the Extensive Interval Method Group with High Training Motivation (A1B1)

6. Data of VO2MAX Capacity Value Players in the Extensive Interval Method Training Group with Low Training Motivation (A1B2)

The results of extensive interval method training with the low training motivation group were obtained in the interval class <35.0 with the lack of category (0%), in the interval class 35.0 - 38.3 with the less category, there were 4 (four) players (57%), in the class interval 38.4 - 45.1 with moderate category there are 3 (three) players (43%), in the interval class 45.2 - 50.9 with no good category (0%), in the interval class 51.0 - 55.9 with very good category none (0%)), and in the interval class> 55.9 with no special category (0%).

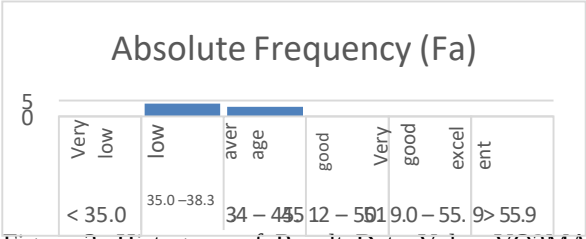

Figure 3. Histogram of Result Data Value VO2MAX Capacity of Players in Exercise Group Extensive Interval Method with Low Training Motivation (A1B2)

7.Voice Capacity Value Data for Players in the Continuous Method Training Group with High Training Motivation (A2B1)

The results of the extensive interval method training were obtained in the interval class <35.0 with the lack of category (0%), in the interval class 35.0 - 38.3 with the less category, there were 1 (one) player (14%), in the interval class 38.4 - 45.1 with in the moderate category there were 6 (six) players (86%), in the interval class 45.2 - 50.9 with no good category (0%), in the interval class 51.0 - 55.9 with the very good category none (0%), and in the class interval> 55.9 with no special category (0%).

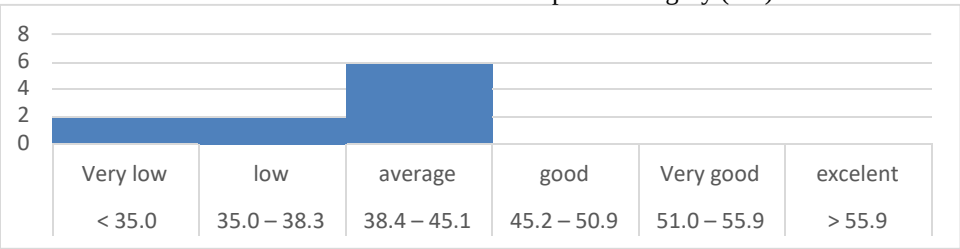

Figure 4. Histogram of VO2MAX Capacity Results Data for Players in the Konti Method Training Group with High Exercise Motivation (A2B1)

8. Data on VO2MAX Capacity Value of Players in the Continuous Method Training Group with Low Training Motivation (A2B2)

The results of the extensive interval method training were obtained in the interval class <35.0 with the lack of category (0%), in the interval class 35.0 - 38.3 with the lack of category (0%), in the interval class 38.4 - 45.1 with the moderate category there were 6 (six) players (86%), in the interval class 45.2 - 50.9 with the category of 1 (one) player (14%), in the interval class 51.0 - 55.9 with the very good category none (0%), and in the interval class > 55.9 with no special category (0%).

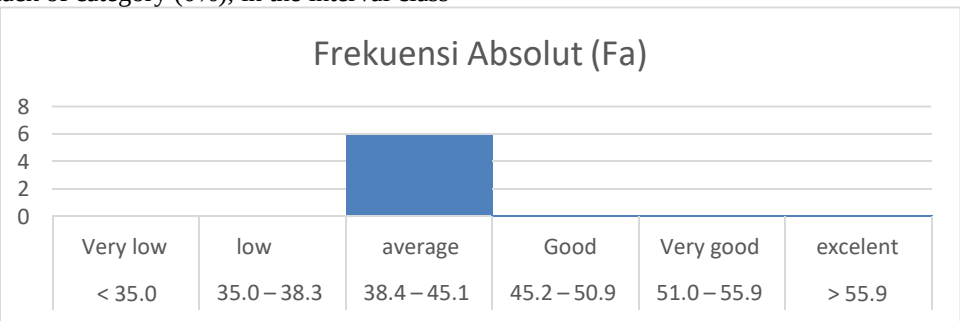

Figure 5. Histogram of Continuous Method Exercise with Low Training Motivation (A2B2)

B. Test Data Analysis Requirements

1. Normality Test

The normality test aims to determine whether the residual value is normally distributed or not. The normality test used in this study is the Kolmogorov-Smirnov normality test with two versions, namely based on the residual value and the normality test based on each variable with the help of the SPSS version 25.0 program. A good regression model is to have a residual value that is normally distributed. The basis for decision making is as follows:

If the Sig> 0.05, the residual value is normally distributed.

If the Sig <0.05, the residual value is not normally distributed.

The results of the normality test based on the residual value using the help of the SPSS program version 25.0 can be seen in table 4.6 below.

Table 3. Data Normality Test of VO2MAX capacity research

Kelompok	N	Lo	L_{tabel}	Ket
A1	14	0.154	0.227	Normal
A2	14	0.289	0.227	Normal
B1	14	0.205	0.227	Normal
B2	14	0.216	0.227	Normal
A1B1	7	0.166	0.300	Normal
A2B1	7	0.244	0.300	Normal
A1B2	7	0.245	0.300	Normal
A2B2	7	0.245	0.300	Normal

Based on table 23 above, the summary of the results of the data normality test for all groups states that Lo <Ltabel, it can be concluded that the data for all groups obtained came from populations that were normally distributed. The details can be seen in appendix 12, page 164.

Homogeneity Test

Another analysis requirement that needs to be done in this study is the homogeneity test of variance. The variance homogeneity test carried out in this study was to use SPSS. Version 25.0 The variance homogeneity test carried out in this study was the cell group in the research design, namely the cell groups A_1 B_1, A_1 B_2, A_2 B_1 and A_2 B_2. The test criterion is H_o.accepted if X_count <Xtable at the significant level α = 0.05. The following is a summary of the variance homogeneity using SPSS.

Table 4. Summary of the Fourth Variance Homogeneity Test Results Research Design

Levene's Test of Equality of Error Variances[a,b]

		Levene Statistic	df1	df2	Sig.
VO2 MAX	Based on Mean	11,163	3	24	,000
	Based on Median	3,501	3	24	,031
	Based on Median and with adjusted df	3,501	3	12,317	,049
	Based on trimmed mean	2,350	3	24	,068

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.
a. Dependent variable: VO2 MAX
b. Design: Intercept + A + B + A * B

From the results of the SPSS table above, the price of Levene's Test with statistical F = 2,350 with db of 3 and 24 at p-value = 0.63> 0.05 or H_o is accepted. So that the four sample data (A1B1, A1B2, A2B1, A2B2) have the same or homogeneous variance. If viewed from F_count, the four samples can be said to be homogeneous if F_count <F_table. From the statistical results obtained F_ (count) = 2.640 while F table = 3.24 then the four data are the same or homogeneous.

Hypothesis test

Hypothesis testing in this study is to use two-way Analysis of Variance (ANOVA) with SPSS version 25.0. Furthermore, if there is an interaction effect between training methods and training motivation on the VO2MAX capacity of the Football Association players in Sungai Bengkal Village, Tebo Regency, then a further test is carried out with or seen the Simple main effect test. The purpose of two-way ANOVA is to determine how the influence of the independent variables on the experimental results and to determine the interaction effect of the treatment. For more details, the results of hypothesis testing can be seen in the table below.

Table 5. Summary of Two-Way ANAVA Calculation Results.

Tests of Between-Subjects Effects
Dependent Variable: VO2 MAX

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	336,530[a]	3	112,177	21,986	,000	,733
Intercept	51858,036	1	51858,036	10163,735	,000	,998
A	28,401	1	28,401	5,566	,027	,188
B	42,756	1	42,756	8,380	,008	,259
A * B	265,373	1	265,373	52,011	,000	,684
Error	122,454	24	5,102			
Total	52317,020	28				
Corrected Total	458,984	27				

a. R Squared = ,733 (Adjusted R Squared = ,700)

Based on the table of the results of the output of SPSS version 25.0 above, there is an influence of the interaction between training methods and training motivation on the VO2Max capacity of football union

players in Sungai Bengkal Village, Tebo Regency. The effect of this interaction can be seen from Fo (52.01)> Ft (4.26). After the effect of the interaction is known, a further test or Simple main effect test is carried out. For more details, see the table below.

Table 6. Summary of Advanced Test Results with SPSS version 25.0.

Contrast Tests		Contrast	Value of Contrast	Std. Error	t	df	Sig. (2-tailed)
VO2 MAX	Assume equal variances	A1B1 X A2B1	8,17	1,207	6,768	24	,000
		A1B2 X A2B2	4,14	1,207	-3,431	24	,002
	Does not assume equal variances	A1B1 X A2B1	8,17	,942	8,677	10,335	,000
		A1B2 X A2B2	4,14	1,424	-2,909	6,814	,023

Based on the results of the SPSS version 25.0 output above, the hypothesis in this study can be concluded as follows:

1. The first hypothesis, overall the extensive interval training method is more effective than the continuous training method group for the VO2Max capacity of the players in the Football Association of Sungai Bengkal Village, Tebo Regency, is accepted. Acceptance of the first hypothesis from the 2-way ANOVA output using SPSS version 25.0 states that FoA (5.56)> Ft (4.26). So it can be concluded that there is a significant difference in VO2Max capacity of the players from Sungai Bengkal Village, Tebo Regency who were given the extensive interval training method with the players who were given the continuous training method significantly.
2. The second hypothesis, there is an interaction between the training method and the motivation to practice on the VO2Max capacity of the Football Association players in Sungai Bengkal Village, Tebo Regency, is accepted. The acceptance of the second hypothesis is illustrated by the 2 Way ANOVA results with SPSS which states that (52.011)> Ft (4.26). So it can be concluded that there is a difference in the interaction between training methods and training motivation on the capacity of the football association in Sungai Bengkal Village, Tebo Regency.
3. The third hypothesis, in the high category training motivation, the extensive interval training method is more effective than the group given the continuous training method to the received VO2Max capacity. The acceptance of the third hypothesis is illustrated by the results of further tests using SPSS version 25.0 of the Simple main effect test. which states that Th (6,768)> Tt (1,171), so it can be concluded that the VO2Max capacity of the players who are given the extended interval training method is better than the players who are given the continuous training method in the group of players who have high training motivation.
4. The fourth hypothesis, in the low category training motivation, the extensive interval training method is no more effective than the continuous training method group on the accepted VO2MAX capacity. The acceptance of the fourth hypothesis is reflected in the results of further tests using SPSS version 25.0, the Simple main effect test which states that Th (8,677) <Tt (1,171). So it can be concluded that the VO2MAX capacity given the extensive interval training method is lower than the players who are given the continuous training method in the group of players who have low training motivation.

For more details, the results of the Two Way Variance Analysis and further tests with the Two Way Variance Analysis with SPSS version 25.0 can be seen in attachment 14 on page 175.

B. Discussion of Research Results

This research was conducted to study the VO2Max capacity of football players in Sungai Bengkal Village, Tebo Regency through the application of extensive interval training methods and continuous training methods using training motivation as the moderator variable. After data analysis and hypothesis testing using two-way ANOVA statistical analysis techniques with SPSS version 25.0 and continued with further testing or viewing the Simple main effect test,

the 4 (four) proposed research hypotheses can be accepted empirically. Based on the findings that have been stated, it is necessary to carry out further studies why there is an interaction between the extensive interval method and the continuous method with the motivation to exercise on the VO2Max capacity of the players in the Football Association of Sungai Bengkal Village, Tebo Regency.

1. There is a difference in the VO2Max capacity of the Football Association of Sungai Bengkal Village, Tebo Regency, who were given the Extensive Interval Method training with the players who were given Continuous Method training.

The results of testing the first hypothesis show that there is a significant difference in the VO2Max capacity of the Football Association of Sungai Bengkal Village, Tebo Regency, which is given the extensive interval training method with players who are given the continuous training method significantly. This is illustrated by the results of the two-way analysis of variance which states that FoA (5.56)> Ft (4.26). That is, the proposed research hypothesis is verified (accepted). We can also see a difference in the player's VO2Max capacity from the difference in the average VO2Max test result, which is a difference of 2.02. With this difference, the average VO2Max capacity given extensive interval method training (44.04) was 2.02 higher than the average VO2Max capacity of players who were given continuous method training (42.02). Based on these findings, it can be said that extensive interval method training is more effective than continuous method training if it is used to increase the VO2Max capacity of the football players in the Bengkal River Village, Tebo Regency.

The acceptance of this hypothesis can occur due to many factors, especially in the training program and implementation of the exercises in the field. These factors can be such as the short time given to the training program, the form of training provided in the training program. The extensive interval method is one method of physical training that emphasizes rest and exercise time. This rest time is very necessary for the body to return to a tired condition. When the training is resumed, it means that the body provides resistance to fatigue that arises from previous exercises, so that physiological adaptations will occur in the body. When the training load has ended, there will be an increase in physical condition. Intense intensity in this extensive interval training method is 60% - 80% of the maximum speed and is also controlled by the pulse after every one series of exercises.

Meanwhile, the continuous training method is a method of training that is carried out continuously without any rest periods. Without a rest period it will stimulate the body's respiratory cardio system to supply oxygen for body activities in aerobic metabolism. In addition, this exercise will familiarize football players with activities for a long time without any rest, such as during a 2x45 minute match. This continuous training method is carried out with a load intensity of 60% - 70% of the maximum pulse.

In addition to the implementation of field exercises, physiological factors such as factors that influence and determine the level of a player's VO2Max capacity can also play a role in the acceptance of this hypothesis. This is because the physiological abilities of each individual are different. Age and gender are the factors that affect the VO2Max capacity of a player. Besides that, the attitude and behavior factors also affect the results of the players' training, because each player has different attitudes and behaviors. If the attitude and behavior of good players, what the coach is instructed to do, is directly different from players whose attitudes and behavior are not good, because players whose attitudes and behavior are not good are often late and do not fully carry out what the coach instructs.

The VO2Max capacity of the player is a reflection of the ability of functions and systems in the body that can create an increase in the quality of life in every physical activity. VO2Max capacity is needed by every player to obtain agility, ability and a strong physique, one way to choose or increase VO2Max capacity by doing regular exercise and daily physical activity that is beneficial for health, and appropriate nutritional intake.

By definition, according to RÖthig and Grossing (2004: 38), “the characteristic of the extensive interval training method is that it is a medium intensity load, where each weight training is about 60 - 80% of the individual's maximum performance ability. It therefore allows for a relatively large load volume”. From that point of view, it is clear that extensive interval training uses moderate intensity weights, allowing us to deliver large volumes through multiple reps.

While continuous training (without rest) is a type of physical exercise that involves activity without rest. This type of training can be high intensity, moderate intensity with prolonged exercise, or fartlek training. (http://en.wikipedia.org). "Running continuously can be used to develop aerobic capacity, namely to increase the efficiency of the relationship between oxygen absorption and energy output." From the above opinion, we can conclude that continuous training is an exercise that is carried out continuously without any rest.

Based on the results obtained above, it is clear that there is a significant difference in the VO2Max capacity of the players between those given the extensive interval method training and those given the

continuous method training. Thus, it can be said that extensive interval method training is more effective than continuous method training when it is used to increase the player's VO2Max capacity in a short time. This means that the two methods are equally good to be applied in the context of training to increase the VO2Max capacity of players, especially in the Football Association of Sungai Bengkal Village, Tebo Regency.

2. There is an interaction between training methods and training motivation on the VO2Max capacity of Football Association players in Sungai Bengkal Village, Tebo Regency

The results of testing the second hypothesis indicate that there is an interaction between the training method and the motivation to practice on the VO2Max capacity of the Football Association players in Sungai Bengkal Village, Tebo Regency. This is reflected in the results of the two-way analysis of variance which states that Fo (52.011)> Ft (4.26), which means that the proposed research hypothesis is verified (accepted). Based on these findings, it can be said that the training method and motivation together have a significant effect on the VO2Max capacity of the Football Association players in Sungai Bengkal Village, Tebo Regency.

Selection of the right training method is very determining the results of the training to be achieved, especially in order to improve the physical fitness of students. Extensive interval method training and continuous method exercise are types of aerobic exercise to increase the VO2Max capacity of the player.

Apart from choosing the right training method, it turns out that there are other factors that affect the results of training, including motivation. This can be seen from the results of this study which states that there is a difference in VO2Max capacity of the players of the Football Association of Sungai Bengkal Village, Tebo Regency, who have high training motivation with players who have low training motivation even though they are trained with the same training method. Thus, it can be said that there is an interaction between the extensive interval method and the continuous method with training motivation on the VO2Max capacity of the players in the Football Association of Sungai Bengkal Village, Tebo Regency.

The interaction between training methods and motivation as described above can be illustrated by comparing the average training method between the four sample groups with high and low levels of motivation with different treatments as follows:

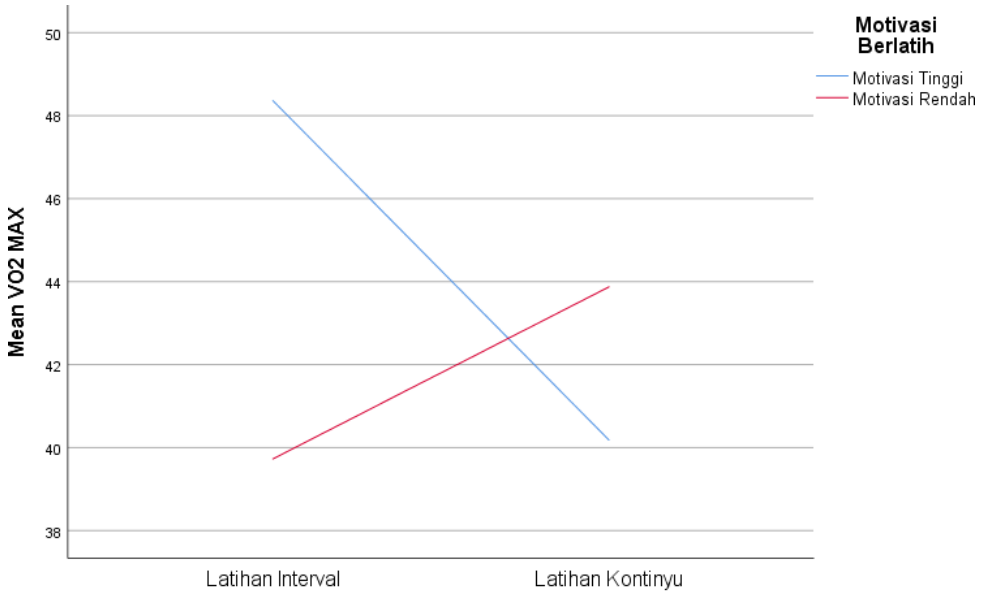

Figure 6. Graph of the Interaction of Exercise Methods with Training Motivation.

Based on the graph above, it can be seen that a significant difference between the results of training given the extensive interval method in the sample group that has high training motivation and the sample group that has low motivation. The presence of interaction or acceptance of this hypothesis is also supported by theory.

According to Nawawi (2008: 38) "VO2Max is the maximum volume of oxygen, also called aerobic capacity, the maximum oxygen up take, which is the body's ability to consume oxygen optimally per minute

at maximum loading." This definition states that VO2Max is the maximum oxygen uptake during activities or when the body exerts exertion. And it is also supported by the motivation theory according to Uno (2008: 1) "Motivation to practice is a force both from within and from outside that encourages a person to achieve certain predetermined goals". Then Setyobroto (2005: 24) "Motivation to practice is the process of actualizing the source of driving and driving individual behavior to meet the needs to achieve certain goals". Based on the above opinion, it can be explained that the motivation to practice is an encouragement that comes from the individual to achieve predetermined goals.

From the quote above, it can be explained that to increase VO2Max itself, programmed sports can be carried out such as providing structured and planned training methods. With a programmed, regular and planned exercise will support the achievement of a desire. The more sports activities and exercise that a person does, the better the VO2Max capacity will be. This is because doing physical activity and exercise will increase the body's ability to consume oxygen optimally. Besides that, it is necessary to pay attention to one's motivation to exercise, if a person has high motivation to train, the programmed exercise can be done and achieve maximum results, and vice versa if the motivation to train is low, someone is not so enthusiastic about doing the planned activities and the results do not reach maximum. So it can be concluded that a progressive, structured and planned exercise such as a training method and supported by motivation is a very determining factor in one's success in achieving increased VO2MAKS capacity.

High Category Training Motivation, Extensive Interval Training Methods Are More Effective Than Groups Given Continuous Training Methods On VO2Max Capacity.

The results of testing the third hypothesis indicate that the VO2Max capacity level of the football association players in Sungai Bengkal Village, Tebo Regency who was given extensive interval method training was better than the players who were given continuous method training in the group of players who had high training motivation. This is illustrated by the results of further tests using the Tukey test which states that tcount is 6.768> ttable = 1.711. That is, the proposed research hypothesis is verified (accepted). Based on these findings, it can be said that extensive interval method training is more effective than continuous method training when it is used to increase the VO2Max capacity of the football players in Sungai Bengkal Village, Tebo Regency, who have high training motivation.

High motivation to train a player is very influential on the sustainability and results of a player's training. The higher the player's motivation to practice, the more enthusiastic he will be in following the training process without discriminating the training given by the coach / teacher. This is in accordance with what Komarudin (2015) stated, that motivation is an encouragement both from within and from outside the individual to carry out activities, and can determine how much effort needs to be made to achieve predetermined goals. Thus, players do not differentiate between the training methods given, because they will exert efforts to achieve the best results.

The explanation above can illustrate several reasons for the acceptance of the proposed hypothesis. In principle, the extensive interval method is a training method that is the same as regular interval training, in which the intensity, repetitions, number of sets, and rest have been determined. Extensive interval method is known through medium load intensity, large amount of load through many repetitions and not full rest”.

In its implementation, the extensive interval method has certain characteristics. According to RÖthig and Grossing (2004: 38), “the characteristic of the extensive interval training method is that it is a medium intensity load, where each weight training is about 60 - 80% of the individual's maximum performance ability. It therefore allows for a relatively large load volume”. From that point of view, it is clear that extensive interval training uses moderate intensity weights, allowing us to deliver large volumes through multiple reps.

Meanwhile, continuous training has the characteristic that there is no rest period during loading. "Continuous training with low intensity, namely slow running with a pulse rate of 120-140 per minute, carried out 15 minutes to 1 hour or more", (Arista, http://jurnal.umk.ac.id/ Endurance and how to exercise) . In addition, Lutan (2002: 47) states "20 minutes of continuous exercise can be done by considering the goal of fitness degrees".

Extensive interval training with the continuous method shows that these two methods have differences in the implementation process but have the same goal of increasing the VO2Max capacity of football players. If these two training methods are carried out properly, it is believed that they will give positive results on the VO2Max capacity of football players. Between these two training methods have different or different effects on VO2Max capacity.

From the above opinion, it is clear that there are advantages to the extensive interval method training, which will increase your VO2Max capacity. because of physical exercise that emphasizes rest and exercise time.

This rest time is very necessary for the body to return to a tired condition. When the training is resumed, it means that the body provides resistance to fatigue that arises from previous exercises, so that physiological adaptations will occur in the body. With this increased training load, players will easily increase their VO2Max capacity. Meanwhile, if you look at the continuous training method, it is a training method that is carried out continuously without any resting time for movement activities on .. Unlike the extensive interval method training which is programmed, regular and planned, it will quickly increase the player's VO2Max capacity.

4. Low Category of Motivation, Extensive Interval Training Methods Are No More Effective Than Athletes' Group Continuous Training Methods Against VO2Max Capacity

The results of testing the fifth hypothesis indicate that the VO2Max capacity level of the football association players in Sungai Bengkal Village, Tebo Regency who was given extensive interval method training was lower than the players who were given continuous method training in the group of players who had low training motivation. This is illustrated by the results of further tests which state that tcount = -3.431 <ttable = 1.711 so that Ho is rejected and H1 is accepted. That is, the proposed research hypothesis is verified (accepted). Based on these findings, there is a significant difference between continuous interval method training and continuous method training when it is used to increase the VO2Max capacity of players of the Football Association of Sungai Bengkal Village, Tebo Regency with low training motivation.

The extensive interval method is one method of physical exercise that emphasizes rest and exercise time. This rest time is very necessary for the body to return to a tired condition. When the training is resumed, it means that the body provides resistance to fatigue that arises from previous exercises, so that physiological adaptations will occur in the body. When the training load has ended, there will be an increase in physical condition. Intense intensity in this extensive interval training method is 60% - 80% of the maximum speed and is also controlled by the pulse after every one series of exercises is completed.

Meanwhile, the continuous training method is a method of training that is carried out continuously without any rest periods. Without a rest period it will stimulate the body's respiratory cardio system to supply oxygen for the body's activities in aerobic metabolism. In addition, this exercise will familiarize football players with activities for a long time without any rest, such as during a 2x45 minute match. This continuous training method is carried out with a load intensity of 60% - 70% of the maximum pulse. Both extensive training methods and continuous training methods have the goal of increasing the VO2Max capacity of football players.

Based on the description of the extensive interval training method with the continuous method, it can be seen that these two methods have differences in the implementation process but have the same goal of increasing the VO2Max capacity of football players. If these two training methods are carried out properly, it is believed that they will give positive results on the VO2Max capacity of football players. Between these two training methods have different or different effects on VO2Max ability.

From some of the explanations above, the two methods have their respective advantages and disadvantages but for the low motivation group in this study, this study is beneficial for the continuous method, because it is influenced by several factors, one of which is training motivation and several other factors, such as age, physical factors, nutritional factors and others.

4. CONCLUSION

The implementation of this research has been tried as best as possible based on the methods and procedures that have been prepared previously. However, some drawbacks will always exist because of the limitations of the study. The limitations and weaknesses in this study include:

1. The training process that cannot be fully controlled by the researcher. However, researchers are still trying their best by involving the coach and assistant coach of the Football Association of Sungai Bengkal Village, Tebo Regency.
2. Weather conditions with several rains prevented the training from being carried out properly.
3. Controlling that is difficult to do by researchers on additional movements performed by the sample during exercise activities or outside training activities.
4. This research was only conducted in one place, namely the Football Association of Sungai Bengkal Village, Tebo Regency, with a total of 28 players.

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