**The Effect of Training Method and Achievement Motivation toward 60 Meters Sprint (Quasi Experimental to Female Athletes of SMP Kayuagung Ogan Komering Ilir)**

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**ABSTRACT**

This research started from the low speed toward 60 meters sprint in female athletes SMP Kayuagung Ogan Komering Ilir. This research aimed to: determine the influence of training method and achievement motivation toward 60 meters sprint. It was an quasi experimental research. The samples treatment in this research were 48 female athletes. This research instrument used was achievement motivation and 60 meters running test. The data obtained were analyzed by using the analysis of variance and Tuckey test. The results of this research showed that: the influence of circuit training method is better than interval training, there was interaction between training method and achievement motivation, in the high level of achievement motivation, the influence of circuit training method is better than interval training method, in the low level of achievement motivation, the influence of interval training method is not better than the circuit training method.

**Key Words: Training Method, Achievement Motivation, 60 Meters Sprint.**

**Introduction**

The role of sport is very important at this time to support human life to stay healthy and have excellent physical fitness in order to carry out everyday tasks well. As a developing country, Indonesia perform in all areas of development including coaching in the field of sports. Will be improved through exercise and physical fitness as well as the spiritual formation of personality and good performance.

Given sport activities ranging from primary school to college. Therefore, school sports activities included in the school curriculum as a means of supporting the growth and improvement of physical fitness of students. Sports activities at school have a purpose in addition to increasing growth and physical fitness, as well as to enhance the pleasure of exercise and to improve performance. Coaching and sports development in the last decade very intensively conducted through the schools created an activity outside of school or extracurricular often called. Sports coaching as part of efforts to improve the quality of human resources. Therefore, through exercise and lifestyle habits made ​​will be formed with the human body or a healthy body.

Search of qualified human resources in sport done in various ways ranging from making a sports activity or sports championship. Sports championships conducted ranging from elementary school to college, and starting from the local level to the international. As stated in the Constitution of the Republic of Indonesia on the 2005 National Sports System chapter 18 verses 8 and 9 reads: Each educational unit can do sports championships appropriate level of growth and development of learners at regular intervals between units of the same level of education. Sports championships between education units as prescribed in paragraph 8 may be continued at the level of local, regional, national and international.

One of the events that followed the event was National Olympic Sport to Junior High School (SMP) provincial level. According to the Ministry of Education and Culture (2012:2) “O2SN SMP is an activity in the field of sports is competition among junior high school students within the scope of a particular region or level of competition". One of the sports competed in the championship is athletic.

Based on the data obtained on the O2SN SMP 2012 in South Sumatra particularly athletics toward sprint 60 meters, performance atlhletes Ogan Komering Ilir is unsatisfactory gives the provincial level, especially for female. At O2SN SMP South Sumatra Province in 2012, OKI rank 5 with obtaining a gold medal in 60-meter sprint to male, being the female did not contribute any medal.

Based on the results of observations conducted by researchers at the track and field athletes in Ogan Komering Ilir, related to the failure of female athletes toward 60 meters sprint on the numbers O2SN activity in 2012 is still low, this is caused by several factors, ie factors of the individual (athlete) that quality of the physical condition of athletes and less motivation for high achievement, while external factors such as infrastructure, quality and knowledge of trainers and training programs. Training program from coach less precise so fast athletes experience fatigue, exercise is boring because of the lack of variation in practice and the role of the coach is not optimal to set the workout time, so that the resulting outcome for female sprinter unsatisfactory.

Physical condition is one of the basic components for sporting achievement. Components of the physical conditions in the sport, among others such as strength, speed, endurance, flexibility, muscular power, agility, coordination, balance, accuracy and reactions. However, components of physical condition is most important for sprinter speed. To improve the components of good physical condition it is necessary to exercise, because the better the person's physical condition or abilities, the greater the chances for achievement. Vice versa, the lower the level of physical condition is getting harder for achievement.

Forms of training methods to increase the sprint of which a great many methods of circuit training, interval training methods, weight training methods, continuous training methods and others. But so far, the method applied is the method of interval training interval training method which has the disadvantage of less varied so boring and monotonous for athletes and also the lack of proper training dose of trainers in delivering the load and break the impact on the condition of athlete , because a given load too heavy and short rest periods, causing fatigue. Then to improve the performance of the optimal researchers tried to use the method in which the circuit training circuit training method using items that make exercise a fun activity because it has variations, so the training provided must be organized in such a manner, training to sprinter not only do sprint,course however strength training, speed and speed endurance reaction also needs to be done. Type of exercise that has been determined, with the aim of doing a boring exercise will not and more efficient. Circuit training method and interval training method has advantages and disadvantages of eac, with the right exercise program are expected both methods can increase toward 60 meters sprint. In this case the researchers wanted to know which of the two methods are effective and efficient in improving toward 60 meters sprint.

In order to support increased sports performance coaching process an athlete must specifically programmed. In addition to the physical condition, practice, techniques, tactics and mental factors that affect performance athletes to achieve the feat is the psychological factor. One aspect that psychology plays an important role in improving the sports performance and achievement motivation.

Running is one number that is competed in athletics. Running is often interpreted as the quickest way for animals and humans to move with the foot. Term in the sport as body movement which at some point all feet are not touching the ground. According Syahara (2009:245) run is a continuation of the special features as the time when the body is released from its foundation (phase drift) of one foot, because at the time of floating bodies, the movement becomes less stable as compared to walking. At run time it takes control of the body as a whole.

According to the Ministry of Education and Culture (2012:24) numbers are the numbers off the athletic competitions that consist of: a) run 60 m, b) long jump, c) javelin with heavy equipment: 700 gr son, daughter 600 gr, d ) Reject bullet weighing equipment: son 4 kg, 3 kg daughter. Sprint sprint (60 yards) is a kind of running race in athletics, which ran 60 yards using the maximum speed along the distance traveled by the shortest possible time, in this case the athlete's 60-meter distances in units of time (seconds).

Circuit training system developed by Morgan and Adamson in 1953 at the University of Leeds in England. Circuit training system is increasingly popular as a coach to try and develop a form of circuit training with some variation of training that are tailored to the needs of the sport. According Sajoto (1995:83) "Circuit training is a training program consisting of several stations and at each station an athlete do the kind oftraining that has been determined. The practice is said to complete the circuit, if an athlete has completed training in all stations in accordance with a predetermined dose. According Soekarman (1987:70) circuit training is:

A combined training program of some items that training its purpose in doing an training will not dull and more efficient. Circuit training exercises will be covered for: (1) muscular strength, (2) muscle endurance, (3) flexibility, (4) agility, (5) balance and (6) cardiopulmonary endurance. The exercises have to rupakan cycle so not boring. Circuit training is usually the existing circuit 6 to 15 stations, lasted for 10-20 minutes. Rest of the station to another 15-20 seconds.

Based on the study of the theory proposed in the circuit training method is a training method that consists of several post and post every athlete do the kind of exercise that has been determined in accordance with the objectives to be achieved. Forms of exercise every post include: shuttle run, knee push ups, sit ups, back up, harvard steps ups, 50 meters sprint, zig-zag running, skipping, knee tuck jump, sprunglauf, squat thrust and 60 meters sprint.

According Harsono (1988:156) "Interval training is an exercise system that was punctuated by intervals of the form of periods of rest". So in the implementation of the interval training, rest-exercise-rest-exercise-rest and so forth. Interval training is an important way to fit exercise into the overall training program. Many trainers recommend to use interval training to carry out the exercise because the results are very positive for developing the overall endurance and stamina athletes.

According Lutan (2002:49) "Exercise is a form of interval training method that incorporates the implementation workload for a relatively short time, and interspersed with rest periods between every opportunity". Based on the study of the theory of the interval training method is a form of exercise methods undertaken by the lapse of time between loading and rest. During interval training, will be associated with a given stimulus method repeatedly and different intensities, with loading and planned break.

In sports activities that psychological factors play an important role in improving the achievement of achievement motivation. According Husdarta (2011:37) achievement motivation is "An impulse that occurs within the individual to continually improve certain qualities with the best or more than usual".

Athletes who have achievement motivation will do everything possible to do its job with all his might. Especially when challenged to win the competition she entered. Athletes who are motivated tend to have high discipline in practice and in matches, because athletes be moved by the urge to excel and achieve the best results. Achievement motivation according to Singer (1984:41):

*Achievement motivation is typically considered with behaviors in the context in which there is: 1) reference to a standard of excellence or competition against other, which allows for evaluation as to level of success (or failure), 2) degree of challenge (uncertainty as to outcome), 3) personal sense of responsibility for out come.*

Achievement motivation is usually considered in the context of the behavior that refers to a standard of excellence or competition against the other, which allows for evaluation of the degree of success or failure, the level of challenge or uncertainty of the results, a sense of personal responsibility for the results. People who have high achievement motivation will act in accordance with the wish achievement always wanted to excel, to excel from the others.

Achievement motivation tend to require him to work harder in order to work responsibilities can be properly implemented. Athletes who have achievement motivation will seek to know his efforts to improve its ability to conduct an evaluation of the success or failure obtained. Athletes who have achievement motivation will accept and respond to serious if given corrections or suggestions from the coaches.

**Methods**

It was an quasi experimental research, with design factorial 2x2.

**Table 1. Factorial design 2 x 2**

|  |  |
| --- | --- |
| **Achievement****Motivation** | **Training Methods** |
| **Circuit Training** | **Interval Training** |
| High | A1B1 | A2B1 |
| Low | A1B2 | A2B2 |

 The population consists of 90 people. Sampling technique in this study is using purposive sampling technique that is based on sampling a particular consideration of the researcher. Based on this, the researchers determined the sample techniques based on percentage so didapatlah sum total sample of 48 people, divided into 4 groups.

 After the division of the sample then the sample is treated as 16 sessions. Further tests carried out after the end of treatment was given to four groups, two groups for circuit training methods with high achievement motivation category (A1B1) and low achievement motivation category (A1B2), then the two groups for interval training method to train high motivation category (A2B1) and low achievement motivation category (A2b2) are given training in accordance with the designed program.

 The data obtained will be processed by analysis of variance (ANOVA) followed by two lines and Tuckey's test if the interaction between variables found training methods with variable achievement motivation. Therefore, this study used a 2x2 factorial design, the data analysis using ANOVA technique two lanes, with a confidence level α = 0,05 . Before the data were processed using Analysis of Variance techniques, first performed ANOVA test requirements, the test for normality using Liliefors Test and Test of Homogeneity of Variance using Bartlet test with significance level α = 0,05.

**Results and Discussion**

Based on the results of the normality test calculations to eight groups in the design of the study found that the price Lobesrvasi (Lo) earned less than the price Ltable on the real level of 0,05. It can be concluded that all groups of data in this study were drawn from a normally distributed population that can be used hypothesis testing research.

Hypothesis testing of this research was done by using ANOVA two lanes. Then conducted further tests using the Tuckey test. ANOVA techniques use two-track aims to determine the contribution of individual independent variables on the experimental results (main effect) and to determine the effect of the interaction ( interaction effect). The main influence in this study are: ( 1 ) differences influence the circuit training method and the interval training method toward 60 meters sprint, (2) the effect of the interaction is the influence of a combination of training methods and achievement motivation toward 60 meters sprint.

Based on the summary of the ANOVA calculation above two lines can be noted that : 1 ) the alternative hypothesis (Ha) states that there are significant circuit training method is better than interval training methods accepted , because the results of the calculations show that F calculate > F table ( 5.17 > 406 ). 2 ) the alternative hypothesis ( Ha) states that there is no interaction between training methods and achievement motivation on acceptable to 60 meters sprint , because the calculation shows that the F calculate > F table ( 6,38 > 4,06 ). It can be concluded that there are significant interactions between training methods and achievement motivation toward 60 meters sprint.

With demonstrated research hypothesis which states that there is an interaction effect between training methods and achievement motivation toward 60 meters sprint, then the analysis should be continued with Tuckey test. Tuckey test complete calculation can be found in appendix. While the summary of test results Tuckey presented in the table below:

**Table 2. Anova Next Phase With *Tuckey Test***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Group Compared** | **Dk** | **Qh** | **Qt (α = 0.05)** | **Imformation** |
|
| A1 and A2 | 1,88 | 3,21 | 2,92 | Significant |
| A1B1 and A2B1 | 2,65 | 4,80 | 3,77 | Significant |
| A1B2 and A2B2 | 2,65 | 0,25 | 3,77 | Unsignificant |

Based on the results of further tests using the Tukey test above can be stated that:

1. The first research hypothesis states that the effect of circuit training method (A1) is better than interval training method (A2) apparently accepted (Qh = 3,21 > Qt = 2,92).
2. The research hypothesis which states that there is interaction between the training methods and achievement motivation toward 60 meters sprint apparently acceptable.
3. The third hypothesis is stated at a high level of achievement motivation, the influence of circuit training method is better than the method of interval training toward 60 meters sprint received (Qh = 4,80 > Qt = 3,77).
4. The fourth hypothesis on the low achievement motivation, the influence of interval training method is better than circuit training method is rejected (Qh = 0,25 < Qt = 3,77).

Based on the data analysis of the first research hypothesis which states that the circuit training method (A1) produces better results than the method of interval training (A2), is accepted. The average score of a group circuit training samples A1 = 53,02 is significantly higher than the average score interval training group A2 = 46,98 (Qh = 3,21 > Qt = 2,92).

Results of testing the first hypothesis suggests that overall, the scores given method group exercise circuit training is higher than the group given exercise method with interval training. In other words that the proposed research hypothesis is accepted. From these findings it can be argued that this method of training is given to the circuit training results would be more effective than the method given exercise with interval training.

Results related to the interaction hypothesis testing, proving that there was an interaction between training methods and achievement motivation in their influence toward 60 meters sprint, in other words that the proposed research hypotheses verified. In the group of high achievement motivation given circuit training method to obtain a higher score than the group given the high achievement motivation interval training methods. So also with low achievement motivation groups, both me-have a significant influence but not, given the results of the group interval training method was slightly better than the group given exercise circuit, although the motivation of the group given the low beprestasi interval training methods and methods circuit training did not affect the significance.

The third research hypothesis which states that the high achievement motivation, circuit training method (A1B1) produces better results than the method of interval training (A2B1), accepted. The average score of the sample group circuit training method A1B1 = 56,83 is significantly higher than the average score method of interval training group A2B1 = 44.10 (Qh = 4,80> Qt = 3,77). The third hypothesis test results showed that overall, the scores given method group exercise circuit training is higher than the method of interval training on high achievement motivation. In other words that the proposed research hypothesis is accepted. From these findings it can be argued that the method of circuit training is more effective than the method used interval training on high achievement motivation.

This method of circuit training using items that offer a wide variety of forms of exercise to improve physical condition so as not to saturate or boring for athletes and many more benefits of circuit training method as disclosed Harsono (1988:230) that:

1. Improve the physical condition of the various components simultaneously in a relatively short time.
2. Each athlete can practice according to their progress.
3. Each athlete can observe and assess their own abilities.
4. Exercise easily monitored
5. Save time, because in a relatively short time to accommodate a lot of people practicing at once.

Athletes who have high achievement motivation will have a strong desire and drive to achieve optimal performance . Athletes who have high achievement motivation will have the higher the initiative in carrying out the tasks assigned. So in doing circuit training, athletes who have high achievement motivation will be able to control myself in accepting various forms of exercise and would earn a good workout too. This happens because of possible circuit training methods have various forms of speed training, especially with athletes who have high achievement motivation that will produce results and maximal exercise can increase the maximum running speed. Based on the results of the data analysis are the findings that, in the high achievement motivation, the group given circuit training method is better than interval training toward 60 meters sprint.

The fourth hypothesis testing results show that overall, the scores given method of interval training group was no better than those given circuit training on beprestasi low motivation. Further tests were carried out based on the influence between the two methods are in a low level of achievement motivation, but the effect is not significant between the interval training method and circuit training method. The average score of the group sample interval training method A2B2 = 49,87 is higher than the score of the sample group circuit training method A1B2 = 49,20 (Qh = 0,25 > Qt = 3,77). The average score interval method group showed higher than the circuit but the result was not significant. In other words, the research hypothesis was rejected. This suggests that the hypothesis is not verified significantly.

Based on further testing, it was found that the low achievement motivation did not occur a significant impact toward 60 meterssprint between the group given method of circuit training and interval training methods. So it can be concluded that the role of achievement motivation has a major effect. According Satiadarma (2000:73) "Achievement motivation (achievement motivation ) is the orientation of a person to keep trying to get the best results as closely as possible with the basic ability to survive even fail and keep trying to complete the task as well as possible because he feels proud to menyelesaikanya well ". Athletes who have high achievement motivation has a strong urge in him to get a good result , while athletes who have low achievement motivation did not have the spirit of the practice or the race and athletes who have low achievement motivation just to do something because it is influenced from outside .

Based on the opinion of the above it is clear that achievement motivation is a crucial factor in one's accomplishments. Therefore, the application method and circuit training interval training to increase running speed is supported with high achievement motivation because with high achievement motivation will get a good performance anyway.

**Conclusion**

Based on the research findings and discussion of research results can be summarized as follows:

1. The Effect of circuit training method is better than interval training methods for toward 60 meters sprint. In other words, circuit training method to increase rather than interval training methods toward 60 meters sprint.
2. There is interaction between the training methods and achievement motivation toward 60 meters sprint.
3. In the high level of achievement motivation, the influence of circuit training method is better than interval training method toward 60 meters sprint. In other words, to increase toward 60 meters sprint circuit training method is more effective than the interval training method.
4. In the low level of achievement motivation, the influence of interval training method is not better than the circuit training method toward 60 meters sprint. In other words that the low achievement motivation there is no influence toward 60 meters sprint a significant between group given the group interval training method and circuit training methods are given.

**Suggestion**

Based on the research results, method circuit training is effective to improve speed especially to 60 meters sprint. Based on the conclusions and implications of the above, it is expected to:

1. Coach, in an effort to increase toward 60 meters sprint effective trainers should use appropriate training methods according to the physical condition of an athlete.
2. Athletes who want to increase toward 60 meters sprint should effectively do the exercises in accordance with the directives and guidelines of the coach.
3. Researchers who want to investigate this matter further, so that would be able to consider a variety of limitations in this study, such as sample size, and so forth. The goal is for the usefulness of the findings obtained.

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