

Effect of Fartlek Training to the Improvement of VO₂Max on runner athletes of 800-meters

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Abstract—The research has aimed the improvement of vo₂max on 800-meters runner of Banjarmasin Athletic with fartlek training. The problem in this study, the athletes did not experience a significant increase especially in endurance during exercise, reality on the field, during training many experience exhaustion is too fast when running the program provided by the coach, and I also hope that I examine the Vo₂Max athlete in order to have the initiative of trainers to check the endurance or Vo₂Max athletes trained to get the most out of practice and compete later. The research method used is the pre-experiment method. The population in this research was all of Banjarmasin Athletic numbered seven people by using Purposive sampling technique. From the researchers' analysis of this study that there is a need for variations of exercise appropriate to the athlete's characteristics in Banjarmasin, by providing fartlek training for increasing vo₂max based on some of the results of the journal as the primary basis in conducting this research. The conclusion of the research is that by giving fartlek exercise with eight weeks can increase vo₂max athletes significantly at athletes runners of 800 meters in Banjarmasin, South Kalimantan.

Keywords— *Fartlek training, Vo₂max, and 800-meters runner*

I. INTRODUCTION

The peak of achievement To achieve a running achievement in athletic sports an athlete must have the physical, technique, tactics, mental, maturity champion and many other factors that the athlete must have to achieve achievement. In one physical must have several elements, namely: strength, endurance, speed, flexibility, and agility. "there are four kinds of completeness that need to be possessed if one will achieve an optimal achievement that includes: 1) Physical Build-Up, 2) Technical Build-Up, 3) Mental Build-Up and 4) Maturity champion "[1]. One of the factors that need to be known immediately is the level of an athlete's physical fitness can be regarded as a condition that gives characteristics about the degree or level of a person's ability to perform activities, whether the activities in practice or during the game.

As a runner must be able to feel the whole how the state of physical fitness has. Thus if the athlete's fitness is in excellent

classification, then anything programmed by the trainer can be completely done without any obstacles, so the program created by the trainer will be accomplished by the desired objectives. There are several numbers that are competed in the athletic branch especially on the run number, ie, short distance, medium distance and long distance. At the middle distance is divided into two 800 meters and 1500 meters. While the author carefully specializes only on 800 meters, so that should be supported by the runner of 800 meters including endurance, speed, and strength. Based on observations in the field while the researchers, in fact after observing the exercise results show there are still many who have less VO₂Max and have not mastered how to extend the step and accelerate the hand swing, which is part of the technique that must be mastered properly by runners. A coach can not yet know the VO₂Max athletes being coached, it is because they lack good endurance, when running athletes experience rapid fatigue so that to improve the ability to achieve achievement so hampered.

In addition, other problems are found in facilities that are less supportive or sufficient for athletes to run in training and trajectory in Banjarmasin that has not been national level, with the lack of knowledge of a trainer to the exercise program. Currently there is no data about the effect of fartlek exercise on VO₂Max increase runners 800 meters athletic athletics Banjarmasin. Therefore the researchers conducted fartlek exercise efforts to increase endurance that is still less owned by athletes run Banjarmasin, especially on runners 800 meters. This method is done in preparation long before the game. Seeing the situation in the field the main source of lack of endurance is the program is not programmed training provided by the coach, which is because the training program is given less precise and does not vary. Therefore an athlete will have difficulty in every practice and even compete.

Then it will all support the technical ability, as well as the mental runner in the match. In addition to achieving these objectives must be balanced with adequate facilities and the full support of the organization, the source of funds, as well as the support of family, friends, community and an athlete will be better if it has the ideal height to support the steps it

achieves on When running athletes in the area of Banjarmasin still not get the proper training program from the trainer, the average of athletes run Banjarmasin, especially the number of medium-range running 800-meters received a training that took off from the coach so that the athletes did not experience a significant increase especially in the physical condition or endurance, as expected especially in improving VO2Max, plays an important role to support the endurance and stamina of the 800-meter runner Banjarmasin.

From some other researchers that fat-leek exercise can improve aerobic endurance as it is discovered that the fartlek exercises have a significant impact on the increase of Vo2Max [2]. fartlek exercise can improve endurance [2]. The fartlek can increase the endurance of an athlete. Based on the results of such research as the fundamental theory using fartlek exercise [3]. Basically every runner must have good VO2Max or pulmonary heart resistance to face the race and especially in doing his daily practice. Do fartlek exercises or endurance exercises on your own. In this study, researchers tried to do fartlek exercise treatment. Researchers provide treatment in the form of fartlek exercise in giving the treatment the researchers gave the exercise concerning the principle-practice, and develop a clear exercise program and correct. The purpose of the exercise is to improve VO2Max, using the existing field facilities in Banjarmasin, as well as the strong will from within the athlete and the motivation of the researcher as the direct trainer of each athlete

II. MATERIALS AND METHOD

The method used in this research is pre-experimental design. The research design used pretest and posttest in one group [5]. The population in this research was all athlete of 800-meters runners who amounted to 7 people and all of them become sample. Sampling technique using the total sample, data collection using Balke test. After the data collected in the pretest and the posttest, then the data were analyzed using T-Test by comparing t-count with t-table, the end of the research conclusions can be concluded.

III. RESULTS AND DISCUSSION

Results of the data pretest and posttest used Balke test.

TABLE I. THE DATA PRETEST AND POSTTEST

Sample	Pretest	Posttest
1	49,25	54,7
2	47,16	50,48
3	42,56	47,2
4	42,55	47,6
5	42,54	46,87
6	37,76	40,49
7	33,11	35,99
Average	42,13	46,19

The results showed the fartlek training could increase VO2Max at runners 800-meters athletic athletics Banjarmasin. In the initial test, an increase of VO2Max runner 800-meters

athletic athlete Banjarmasin with average initial test VO2Max = 42.13 ml/g/min. After being treated fartlek exercise, then the results VO2Max runners 800 meters athletics athletes Banjarmasin increased by an average of 46, 19 ml/g/min. Can be seen an increase in the figure diagram:

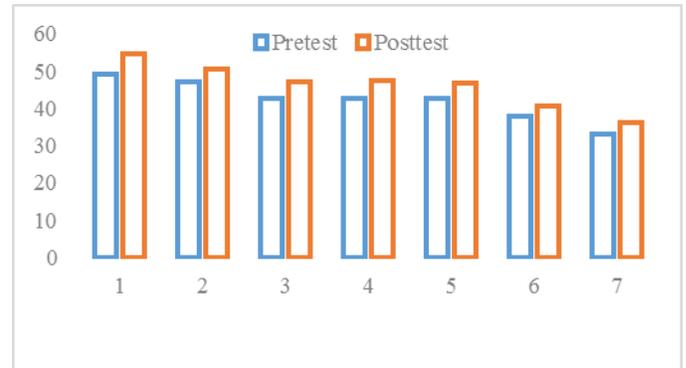


Fig. 1. Increase the Data Pretest and Posttest

Results after treatment were given three times per week for six weeks that had a significant effect on the VO2Max increase in the runner. The 800-meter runner's VO2Max increase as a result of treatment with exercises that lead to the progress of runners in improving the VO2Max provided by the trainer. Through these exercises, the athlete runs to understand the principles of proper practice so as not to experience any errors in the exercise that result in overtraining that harms the runner himself.

At the time given the treatment of sample fartlek exercises run well, so do not get too many obstacles. Samples diligently to follow the exercises with encouragement each time carry out the exercise up to 18 times the meeting, and the sample on the final test is still seven people. My reason for researching a VO2Max runner 800 meters athletic athlete Banjarmasin because I see the reality on the field, during training many experience exhaustion is too fast when running the program provided by the coach, and I also hope that I examine the vo2Max athlete in order to have the initiative of trainers to check the endurance or VO2Max athletes trained to get the most out of practice and compete later. If the long time for the treatment of this exercise the increase will be higher, but due to limitations and costs are not possible given the longer treatment, researchers who can only examine up here.

In this research used fartlek exercises with various variations such as: run slow, then short sprints, and followed with a moderate run (long stretch). The speed when running is arranged according to the character of each athlete and when the athlete has started to feel tired can break by walking. This pattern of exercise is like playing with this speed so that making fartlek exercises can increase endurance athletes. Discussion about fartlek exercise also based on previous research that is: the fartlek exercises provide there a significant effect on endurance between group control and group experiments between physical education students from fartlek training [6]. The fartlek training proved to be effective in enhancing endurance for runners athletes [7]. The farlek training programme significantly improved maximum oxygen

consumption and resting pulse rate [8]. study results agree with the effectiveness of a 30 s all-out training program with a reduced time commitment for anthropometric, aerobic and anaerobic adaptation and eliminate doubts about its safety as a model [9]. Researchers believe with the results of data obtained in this study if the treatment is longer then it will achieve satisfactory results in forming excellent physical, athletic athletes, especially runners 800-meters.

IV. CONCLUSIONS

Based on the results of data analysis and discussion that have been put forward can be concluded that there is an Effect of Fartlek Training to Improvement of VO2Max on 800-meters runner of Banjarmasin Athletic.

ACKNOWLEDGMENT

We would like to be grateful to the Dean of Teacher Training and Education Faculty, Lambung Mangkurat University, who has supported us in the form of funding. Therefore we could join this International seminar.

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