

The Influence of Interval Run Training on Fitness Status in Students at State Elementary School

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Abstract —This study aims to determine the effect of interval running training on the level of physical fitness in students of the Kaludan Kecil State Elementary School. The research method used is the pre-experiment design method. The population in this study were all students of SDN Kaludan Kecil, amounting to 24 people consisting of male and female students, while the samples in this study were 24 people, consisting of 12 sons and 12 daughters with sampling techniques using total sampling techniques. The results showed that the pretest variable level of physical fitness in students of the Kaludan Small Elementary School students obtained an average = 15.17 with a standard deviation = 1.633. Whereas in the posttest variable, the level of physical fitness of the students of the Kaludan Kecil State Elementary School students obtained an average of 18.25 with a standard deviation = 2.069. T-test results obtained $t_{count} = 18,206 > t_{table} (23; 0,025) = 2,207$, or with Sig. (2-tailed) = 0,000; it turns out that Sig. (2-tailed) < 0.05 thus the t-count is significant. The conclusion is that there is an effect of interval running training on the level of physical fitness of students at the Kaludan Kecil State Elementary School. The population of this study is the students of SDN Kaludan Kecil, who are 10-12 years old, the sample of this study is the same as the population, which is 24 people including 12 male students and 12 daughters, with a total sampling technique. The instrument in this study used Indonesian physical fitness test 10-12 years age group and interval running training, data analysis using non-parametric statistical tests paired sample t-test.

Keywords: *influence, exercise, running, interval, physical fitness*

I. INTRODUCTION

According to Dr. Gillaspay from the University of Phoenix and Ashford University, physical fitness is a person's ability to do undue tasks without feeling exhausted [1]. Before the industrial revolution, physical fitness was defined as the capacity to carry out daily activities without fatigue. However, with changes in lifestyle, physical fitness is defined as a measure of the body's ability to function efficiently and effectively in carrying out work and rest activities to achieve good situations to fight various diseases and to deal with any situation. That in terms of physiology, physical fitness is the ability and ability of the body to carry out physical loading tasks assigned to it (daily work) without causing significant exhaustion [2]. The negative impact of the development of technology that is increasingly advanced and sophisticated causes people to tend to be lazy in a lot of work to spend energy. It is certain that their physical movement and freshness is lacking because their work has been supported by fast and easy equipment without expending energy. By continuing to live with such conditions, the individual can be ascertained not to have good physical fitness. And if this is still cultivated, it can

cause excess weight and even obesity (obesity), the risk of heart disease, hypertension, accumulation of bad cholesterol, osteoporosis cancer, and so forth. Where this is a number of things that can be a source of disease for us. Whether we realize it or not, physical fitness is one of the necessities of human life because physical fitness is combined with human life. Physical fitness gives a person the ability to do productive daily work without excessive fatigue and still has enough energy to enjoy leisure time and do sudden work.

Excessive weight can occur due to an imbalance between the energy consumed and the energy expended. This happens because these students consume food but are lazy in doing physical activities (exercise) so that with this habit, there is a buildup of fat in the body of the child so that he experiences excess weight. This problem is seen in students of SDN Kaludan Kecil, North Hulu Sungai Regency, who only carry out modest activities without paying attention to the balance and benefits of a fit body. This happens due to the lack of motivation for children to be serious and get used to exercising. Training at this time is not just about exercise, but it is a complex process. In understanding the problem, a trainer must equip himself with sufficient knowledge. Swimming training is not only influenced by coaches and athletes, but also by science, especially sports science. In general, many athletes and even coaches who have believed that more physical exercise means better. Actually, what determines the success of an athlete is not how heavy or how much the athlete is training, but the most important thing is the accuracy of the intensity of training [3]. At present, there are a lot of teachers or physical education teachers who are not professional enough to teach at school, in learning physical education teachers often only teach by giving students what they want without paying attention to problems that arise and a lot occurs in the field, namely the low level of physical fitness of participants students. Therefore teachers who also work as trainers, in this case, must take actions aimed at improving the physical fitness of students by conducting studies and research using various methods including through interval training.

There are several forms of exercise that can be applied to improve the physical fitness of students, including training circuits, running 2.4 km, running acceleration, interval training, continuous running, and small side game exercises. Interval training is a form of exercise that will be used by researchers in addressing the problem of low levels of physical fitness found in students of SDN Kaludan Kecil Hulu Sungai Utara Regency.

Interval training is a form of specific training activities that are interspersed with intervals in the form of periods of rest. Interval training is a training system that alternates between doing actively (work intervals) with periods of

activity with low intensity (interrupted periods) in a training phase [4]. Based on this, the author plans to examine further "The Effect of Interval Running Exercise on Physical Fitness Status of Kaludan Kecil Elementary School Students". The purpose of this study was: to determine the effect of interval running training on the physical fitness status of students of SDN Kaludan Kecil.

II. METHODOLOGY

This study uses an experimental method, which is pre-experimental, with a one-group pretest-posttest design. Subjects consisted of elementary and fifth-grade elementary school (five) SDN Kaludan Kecil elementary school students aged 10-12 years. The population of this study is the students of SDN Kaludan Kecil, who are 10-12 years old, the sample of this study is the same as the population, which is 24 people including 12 male students and 12 daughters, with a total sampling technique. The instrument in this study used Indonesian physical fitness test 10-12 years age group and interval running training, data analysis using non-parametric statistical tests paired sample t-test. Provision of exercise as a treatment to achieve a better degree of physical fitness will last for six weeks and exercise is done four times a week. The program used in the treatment of treatment is to use the form of interval running training programs compiled by researchers by first consulting the program created before giving treatment.

III. RESULTS AND DISCUSSION

The results of the data obtained in the field: pretest data on the level of physical fitness among students of SDN Kaludan Kecil

TABLE I. DATA OF RESULT

No.	Tendency Sentral	Pretest	Posttest
1.	Mean	15,17	18,25
2.	Median	15,50	18,50
3.	Mode	16	17
4.	Standard Deviasi	1,633	2,069
5.	Varians	2,667	4,283
6.	Skor Tertinggi	17	22
7.	Skor Terendah	12	14

Based on the study of theory and statistical calculations with reference to the conclusions of the analysis conducted. This discussion will refer to the hypothesis proposed in the study that is whether there is a significant effect of interval running training on physical fitness status. The process of fostering achievement is one of learning that can develop and provide a briefing experience that will cause changes in the ability of individuals to be able to display optimal results. Interval running is part of Interval Training [5], which is an exercise program consisting of repetition periods of work interspersed with rest periods or is a series of repetitive exercises and interspersed with periods of rest. Light exercise is usually done during this rest period [6].

Based on the above opinion it can be concluded that interval running training is very instrumental and determines the appearance of motion so that the desired goal, namely increasing the physical fitness status of trained students can be achieved

The t-test calculation of the physical fitness status of SDN Kaludan Kecil students states that there is an influence on the treatment activities carried out. The form of training in

this study is interval training (training interval) that is seen in statistical tests. (see t.test test results above)

Interval training is a series of repetitive physical training events interspersed with recovery periods. Mild physical exercise usually fills the recovery period. To understand why this training method is so successful, we will start with a description of energy production and fatigue during this intermittent activity. To give an overview of the description of this exercise, for example, run continuously as hard as you can for one minute, then on another occasion, run intermittently by running as hard as you could on a continuous run earlier, but only for 10 seconds, rest 30 seconds, then run again, and so on.

Interval training methods for athletes in conducting work intervals are adjusted to their sports branches, for example, swimming with swimming activities. The type of activity chosen for general physical exercise is based on the choice. As a summary, the interval training system can be described as follows [7].

"Determine in advance which main energy system needs to be developed, select the form of activity (exercise) that is used during the work interval (swimming, running, etc.), determine the exercise according to the information in the list of the main energy systems to be developed. The number of repetitions (reps) and sets, the ratio of rest work, and the type of rest interval give an increase in intensity during the exercise program. Although interval training is a very good system for athletes and non-athletes interested in "general-fitness", this method is not the only training method available. The progress of athlete achievement is a direct result of the amount and quality of work achieved in training. The workload in training is gradually increased and adjusted to each athlete's physiological and psychological abilities.

Many benefits are obtained by using the interval training method when compared with other methods including more rigorous [8], more systematic control of training because it allows a trainer to more easily know the progress of day after day, the increase in energy potential is faster than other conditioning methods, the program can be done almost anywhere and does not require special equipment.

In conjunction with interval running exercises that have been done to achieve the expected goals in this study as a result of the findings in research that has been done. The treatment was given as a means to achieve the level of physical fitness expected in this study.



Fig. 1. Pretest and Posttest

Based on the results of statistical analysis with the t-test as presented in the table above as follows; 1) the results of the t-test analysis of pretest and posttest variables of physical fitness level in Kaludan Kecil Elementary School students, obtained $t\text{-count} = 18.206 > t\text{-table} (23; 0.025) = 2.07$, or with Sig. (2-tailed) = 0,000; it turns out that Sig. (2-tailed) = 0,000 < 0.05 thus the t-count is significant. So it can be concluded that there is an effect of interval running training on the level of physical fitness in Kaludan Kecil Elementary School students.

In this study provides interval running exercises in accordance with the correct interval training procedures, which are carried out within six weeks, for 24 meetings with a frequency of 4 times a week. Before the exercise is given physical fitness tests of students using Indonesian physical fitness test instruments aged 10-12 years, because the sample used in this study is 10-12 years old. Then after being given the interval training exercise for six weeks, the Indonesian physical fitness test was performed again. It turned out that after analyzing the results of the initial test and the final test showed an increase in physical fitness and the influence of interval running training on the physical fitness of students of SDN Kaludan Kecil. So that this exercise can be applied at school, for example, in extracurricular activities at school to improve students' physical fitness or student achievement.

IV. CONCLUSION

Based on data analysis and research discussion, the results of this study can be concluded as follows: There is a

significant influence of interval running training on the level of physical fitness in Kaludan Kecil Elementary School students.

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