



Enhancement of Students' Fitness Using Rhythmic Gymnastics (Batara Gymnastics)

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Abstract

Batara gymnastics is an abbreviation of gymnastic activities that have a fit, agile, and happy character. Batara gymnastics is one of the variations in rhythmic gymnastics created. The purpose of study was to improve students' body fitness through batara gymnastic for student at eleventh grade SMK Negeri 2 Oku. This research used experimental research. The design of this study used one group pretest posttest design. Process of collecting data used TKJI method. The results of study show that 1) pretest score before doing Gymnastics Batara (Fit Tangkas Gembira) obtained a score of 14.20 while students after doing Gymnastics Batara (Fit Tangkas Gembira) obtained a score of 18.05. Furthermore, the statistical analysis of the T-Test obtained t-count of -10,771 greater than ttable = 1,729. From these results it can be concluded that there is the Effect of Gymnastics Gymnastics (Fit Tangkas Gleeful) on the level of fitness of class XI students in SMK Negeri 2 OKU that is equal to 27.11%.

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INTRODUCTION

Good fitness is the main asset for someone to do physical activities repeatedly in a relatively long time. It does not cause significant fatigue. Physical fitness is the body's ability to do physical work that is done every day without causing significant fatigue (Wiaro, 2012). It means that every student should have a good level of fitness in doing activities. However, the fact found that students have a fitness problem which is quite alarming. One of the main causes of the decline in physical fitness of students is because they are less active in sports. Besides that, students also tend to watch more television, to play online games that have taken up a lot of time sitting in front of the computer. These activities have spoiled many students. They lack the movement activity, especially for children and adolescents who are in growth. If this condition takes a long time, then it can be possible for obesity or disease due to lack of movement activity.

To solve these problems, sports activities in schools become one of the good solutions. One variation of interesting and fun sports activities is gymnastics. Gymnastics can improve body fitness and physiological function because healthy people are the resources needed in human development and it is as the basic capital in realizing the ideals of the nation. In addition, sports that have high achievements will bring the name of the nation in the international world. Batara gymnastics (fit, agile, and happy) is one variation of rhythmic gymnastics movements is created by the author. This variation of the batara gymnastics (fit, agile, and happy) was developed by easy and systematic movements. These are adapted to the characteristics of high school or vocational school children. It used a music arrangements or regional songs from Southern Sumatra such as petang lah petang, ombai akas, dik sangke, and gending sriwijaya songs. Thus, rhythmic gymnastics movements become more interesting.

Rhythmic gymnastics is a sport that can be done individually or in groups. Rhythmic gymnastics are very good for body fitness and the formation of body parts. Good and appropriate movements in rhythmic gymnastics activities will produce maximum results as expected. According to Caine, (2013) stated that gymnastics is a sport characterized by early intensive practice. It can represent the most demanding sport in which excellence in performance is reached during childhood and early adolescence. Childhood and adolescence are periods of enormous skeletal growth (at the end of adolescence, the major part

of adult bone mass is acquired. Husnul (2011) described that rhythmic gymnastics is gymnastics has done to express a sense of art or beauty to foster and enhance the art of motion. The pressure that must be put on the rhythmic gymnastics is the rhythm, body flexibility, and continuity of movement. According to Cristina & Vasilica, (2012), rhythmic gymnastics is characterized by a very wide range of moves, elements and combinations, from the most "simple to some technically very complex and difficult ones. Basically, gymnastics is a physical activity that is richest in motion structure. It is also considered physical activity that is very suitable to be a tool of physical education, because it is considered capable of contributing to the development of children's motor and physical quality at once.

An initial observation found that the lack of movement activity in students is be general problem. Daily activities at school that tend students do not have tiring physical activity. This is proven because students only do motion activities during physical education sports lessons. Therefore, the researcher wants to study and find out about the effect of rhythmic gymnastics (Batara gymnastics) on improving the fitness of high school / vocational students.

Therefore, the main problem in this study is to enhance students' fitness through rhythmic gymnastics (batara gymnastics). Batara gymnastic is creation of gymnastic to create interest gymnastic in the school. As it knows that music is able to build stimulation of learning ability.

METHODS

This study used a type of experiment research using one group pretest-posttest design experimental. It held observations twice before and after (pretest and posttest). The illustrative research design model can be seen in the following chart.

Table 1. Research Design Model

Group	Pretest	Treatment	Posttest
Experiment	O1	X	O2

Note;

X : Treatment

O1 : Pretest

O2 : Posttest

(Sugiyono, 2013)

The population is a large group of research subjects. The population in this study are students of class XI SMK Negeri 2 OKU. The sample is taken using saturated sample. According to Ari-

kunto (2012) that if the total population is less than 100 people, then the total sample is taken, but if the population is greater than 100 people, then it can be taken 10-15% or 20-25% of the total population. The population of research is not greater than 100 respondents, Then it is be 100% as sample, it is around to 27 students of class XI SMK Negeri 2 OKU.

The process of collecting data used test. In this study, it is necessary to use the TKJI (Tes Kebugaran Jasmani Indonesia / Indonesian Physical Fitness Test) method which consists of several components, namely a 40 meter short run test, an elbow hanging test, lying down for 30 seconds, upright jumping (Widiastuti, 2015). Batara gymnastic treatment (Fit Agile Happy) aims to measure the level of students' fitness and each student does the two series. Technique data analysis used t-test for treatment and experiment group. It is Paired Sample t-test.

RESULTS AND DISCUSSION

Result of data analysis is taken from Indonesian Physical Fitness Test which were obtained from research subjects totaling 20 respondents who were given training treatment using aerobic exercise. Before the treatment process, the participant is given an initial test is conducted to determine the student's physical fitness before they received the exercise. The treatment is given three times a week for 12 meetings. After that, the participant received the posttest in order to know increasing of students' fitness. In this study has given the symbol to understand the variable. Pre-test group is X1 and posttest group is X2.

Descriptive analysis obtained a maximum score of 17, minimum 12, mean 14.20, median 14.00, mode 13 and standard deviation values of 1.73509. it can be seen in frequency distribution of Indonesian Physical Fitness Test

Table 2. Frequency Distribution of Pre-Test-Group Data

Interval Class	Category	Frequency	%
5-9	Very Less	0	0%
10-13	Less	9	45%
14-17	Average	11	55%
18-21	Good	0	0%
22-25	Very Good	0	0%
Account	20	100%	

Table 2 can be concluded that the student's fitness level has not shown the expected standard level in learning. This means that the fitness value of students does not meet the minimum graduation criteria of 70. This can be seen from the high percentage in the medium and low categories which are 55% and 45%. After the students received treatment, they have increasing of fitness level.

The result of posttest data analysis can be concluded that a maximum value of 22, a minimum of 14, a mean of 18.05, a median of 18.00, mode 18 and a standard deviation of 2.25890. The enhancement of students' test is in the **Table 3**.

Table 3. Frequency Distribution of Post Test Group Data

Interval Class	Category	Frequency	%
5-9	Very Less	0	0%
10-13	Less	0	0%
14-17	Average	8	40%
18-21	Good	10	50%
22-25	Very Good	2	10%
Account	20	100%	

Table 3 can be seen that students have experienced a very good increase in fitness. This can be seen at the percentage level that has been dominated by good categories of 50% and very good 10%. Thus, it was concluded that the fitness level of students who had received treatment with batara gymnastics was 60%.

Besides that, to know the increasing of students' fitness is presented from t-test. Data analysis was performed by t-test on the pre-test group data and the post-test group the results of the 40-meter run test measurement. This test will test the hypothesis:

Ha : There is the influence of the Batara gymnastics (Fit Agile Happy) on the increase of students' fitness for grade XI in SMK Negeri 2 OKU.

Ho : There is no influence of the Batara gymnastics (Fit Agile Happy) on the increase of students' fitness for grade XI in SMK Negeri 2 OKU

The hypothesis is accepted or rejected through comparison of t-count and t-table value. If the value of the t-count lies between negative and positive from the t table ($-t_{1-1} / 2 \leq t < t_{1-1} / 2$), or if the significance of the calculation is

greater than 0.05 then a hypothesis is accepted.

The t-test results obtained t-count of 10.771 and the value of t-table at dk (0.05) (19) of 1.729 with a significance level of 0.000. Because the t-count is greater than t-table $-10,771 > 1,729$, it can be concluded that there is an effect of the Batara gymnastic exercise (Fit Agile Happy) to the level of students' physical fitness for grade XI SMK Negeri 2 OKU. It can be seen that the average score of the Indonesian Physical Fitness Test in pre-test is 14.20, while the average score of the Indonesian Physical Fitness Test in post-test is 18.05. The amount of increase or effectiveness of the Batara gymnastics (Fit Agile Happy) as follows:

Table 3. Percentage Increasing

Group	Mean	Mean Different	Percentage Increasing
Pretest	14.20	3.85	27.11%
Posttest	18.05		

Table 3 show that the average difference between the posttest and pretest is 3.85. From the average difference, it can be seen the percentage increase of 27.11%. Kunarti, Jubaedi, & Nurseto (2015) has also proven that rhythmic gymnastics has influenced the fitness level of middle school students. The results of calculations and analysis of data obtained from measurement tests, twice-weekly rhythmic exercise significantly affect the level of physical fitness, the test results showed a significant figure of 6.990. Rhythmic exercise is the same as aerobic exercise. The rhythm played varies and invites interest to be done. Aerobic exercise is an activity (motion) carried out by individuals or groups of people rhythmically, using large muscles, using the aerobic energy system, and following the rhythm of music that is also chosen so as to give birth to rhythmic provisions, continuity, and a certain duration aimed at increasing and maintenance of body fitness and other goals such as losing weight. Aerobic exercise is gymnastics that moves all muscles, especially large muscles with steady, continuous, rhythmic, forward, and continuous movements (Listyarini, 2005).

Improving student fitness at school through rhythmic gymnastics should have been adjusted to the needs of students and the development of knowledge and technology. This means that rhythmic gymnastics currently has undergone many changes combined with various genres of music. However, the music used is often modern

music. Whereas traditional music is rarely used. Though the introduction of music by traditional songs can help students recognize and preserve local culture. Therefore, the creation of rhythmic gymnastics should be made by sports teachers so that the process of exercising at school is more fun.

In this study, rhythmic exercises used to improve student fitness have been created using traditional songs. Thus, the music or rhythm that is heard by students has a unique and novelty of study so that students do not feel bored. This is because traditional music is still familiar to them and the rhythm sounds strange. It means that the rhythm in the gymnastics invites the curiosity of students every gymnastic movement. The impact of this is an increase students' interest in learning gymnastics and physical activity of students in sports.

The use of music for sports with choreography or routines can be viewed from many aspects. Since music has become one of the requirements in these competitions, the function of music together with the movement and the overall visual and audio aspects are important. This issue of musicality also affects the entire practice of the delivery of choreography from the coaches to the gymnasts, from mastery of the routine to the competition arena. From the observation, musicality with sensitivity in rhythm and musical structure indirectly give much control for a gymnast to perform according to the designated musical details. Nonetheless, the music could achieved its function not only in terms of artistic aspects but also to contribute effectively to the performance of gymnasts (Chiat & Ying, 2012). Pratama concluded that the need for physical education learning that can maximize physical activity activities and sports activities of students in daily life (Pratama, 2018).

In addition, rhythmic gymnastics can also improve students' motor skills because students can easily practice movements. It was found that the Indonesian Children's Gymnastics training activities for elementary school students which were carried out four times a week had significantly improved students' motor skills (Indriani & Alfian, 2016). This increase is caused by movements in gymnastics that are done properly and routinely. Therefore, gymnastics can be done every day because the movements are not too complicated or difficult. Especially at this time, many gymnastic modifications with a variety of dances. This has made the gymnastic participants happy to make a move.

CONCLUSION

Based on the results of analysis concluded that there is a significant influence from the exercise of Batara gymnastics (Fit Agile Happy) on the level of students' physical fitness in class XI SMK Negeri 2 OKU. It can be seen from the pretest and posttest. These results are evidenced by the comparison of the calculated results in the t-test group of pre-test and post-test is 10.771 and it greater than t-table of 1.729. The conclusions of these research findings are in line with the results of studies from (Arifin, 2018), (Karlina, 2016) and (Tanzila, Chairani & Prawesti, 2018) which produce proven to be able to improve students' physical fitness. For further research on the exercise of the Batara (Fit Agile Happy) Gymnastics can focus to improve the frequency and intensity of the exercise with different amounts and samples.

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