The Effectiveness of the Development of Rhythmic Activity Model of the Barongan Dance Modification for Physical Education Learning In Primary School

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Abstract

Objectives: This study aims to produce a rhythmic activity model by modifying barongan dance in Physical Education learning in primary schools.

Method: This is a research adapted by Borg & Gall's research steps consisting of ten steps of conducting research as follows: (1) gathering information, (2) planning the products to be created, (3) preparing initial product drafts, (4) having small-scale trials, (5) revising product, (6) having large-scale trials, (7) revising product, (8) testing the effectiveness, (9) revising final product, (10) disseminating the products. Small-scale field trials were conducted at the two Primary School. Large-scale field trials were conducted at four Primary School. The instruments used to collect data are observations, interviews, evaluation sheets of effectiveness tests including evaluation of learning outcomes, consisting of cognitive, affective, psychomotor evaluation. The validity of the cognitive validity evaluation instrument is 0.631 with the reliability of 0.836. Meanwhile the evaluation of affective validity is 0.679 with reliability of 0.700, and the evaluation of psychomotor validity is 0.648 with the reliability of 0.824. The data analysis technique used is quantitative descriptive analysis and normality test analysis, homogeneity test, and t test.

Result: The product of rhythmic activity model development, which is the result of this research, was done by modifying barongan dance in physical education learning for the high-grade students in primary schools. This product is found to be very effective.

Conclusions: The rhythmic activity in barongan dance modification in Physical Education learning contributed 11.03% for cognitive aspects, 12.06% for affective aspects, and 13.60% for psychomotor aspects.

Keywords: rhythmic activity, barongan dance, physical education learning, primary school


INTRODUCTION

Physical education, sports, and health are forms of kinesthetic education for the quality of human life. Therefore, kinesthetic education needs to be a reference in the implementation of physical, sport, and health education. Physical, sport, and health education in schools is not only educating students through physical activities, but also used as a medium for solving kinesthetic problems.

According to Graham Physical education is the school program that is designed to lead youngsters to a lifetime of physical activity. The goal or purpose of a quality physical education program is to guide youngsters in the process of becoming physically active for a lifetime. Graham said that physical education is a school program designed to
lead children to life-long physical activities. The aim of a quality physical education program is to guide children in the process of becoming physically active for a lifetime. [1]

Physical, sport, and health education in primary schools have so far been oriented to teaching sports branches that are directed towards the mastery of detailed techniques and achievements of the sports that are taught. Such demands always influence the perception and mindset of both students and teacher of Physical, sport, and health education. This fact can be seen in the field or from observations. It can be said that the implementation of physical education has not been managed properly with the growth and development of students in terms of cognitive, affective, psychomotor, and physical.

Based on the results of interviews conducted for needs analysis conducted on teachers of Physical, sport, and health education in primary schools in Bantul District, it shows that the teacher has taught rhythmic gymnastics. However, it was found some facts when the teacher delivered rhythm activity learning material, namely: 1) Students had difficulty in doing rhythmic activity movements so that students did not move actively and efficiently. 2) Most of the teachers still used the SKJ rhythmic media which has general movements to all levels of society so that students found it difficult to make movements. They also found that the music was too fast with many fast-changing movements so that it is difficult to follow. 3) Teachers did not have a lot of idea variations in rhythmic activities used for rhythmic learning activities in school. 4) Rhythmic activities taught had not been able to fully improve students’ motor skills. 5) Rhythmic activities carried out in schools had not contained elements of regional culture yet. 6) The students’ self-confidence aspect had not yet appeared when performing rhythmic activities, not all children did rhythmic activities well. 7) Teachers really need a learning model of rhythmic activity based on local culture to develop students’ gross motor skills and self-confidence, learning rhythmic activities that are easy to memorize their movements, as well as learning rhythmic activities that are able to develop cognitive, affective, and psychomotor aspects of students.

In regard with these cases, the researcher rechecked the students by doing interviews and they said they had been taught rhythmic activity learning materials. Here are the complete results of the interview 1) Students still experienced difficulties because the movements taught by the teacher were difficult to imitate. 2) Students needed rhythmic activities that are easier to do. 3) Difficult movements made students embarrassed when doing rhythmic activities in front of their friends, especially those of the opposite sex. 4) The rhythmic movement taught made fast-changing movement. 5) Gymnastics performed in schools had not contained elements of regional culture yet.

Therefore, it can be concluded that the teachers of Physical, sport, and health Education in schools stated that Rhythmic activities cannot be done optimally. In addition, the students were still shy in doing rhythmic activity movements. It is also found the absence of regional cultural-based rhythmic activities. Teachers need the development of regional culture-based exercises for physical education learning in schools, so as to accommodate the needs of teachers Physical, sports, and health education in primary schools. Hence, the researcher produces the guidebooks of rhythmic activity equipped with VCDs of barongan dance modification to provide rhythmic activity learning to students. The researcher planned to produce and develop a rhythmic activity model by modifying Barongan dance in Physical Education learning in primary schools.

METHODS

The subjects of this study were 30 students and teacher of a primary school, SD Muhammadiyah Bantul Kota. This research was conducted to find out the effectiveness of the use of barongan dance modification rhythmic activity models for Physical Education learning in primary schools. Firstly, the pretest was done to get the score of pre test, then, the teacher conducted 6 learning meetings. After the meeting, a posttest was conducted to find out the effectiveness of using the rhythmic activity model. This program was carried out once a week with 70 minutes in each meeting. The learning was adjusted or scheduled by the school in accordance with their learning syllabus.
Learning the activity of rhythmic barongan dance modification was done in part-time learning. The first part is warm-up activity, the second part is the core or the training, and the third part is the cool down. The learning process was carried out with the help of a guidebook and DVD of the rhythmic barongan dance modification. The rhythmic movement activities were done together or in groups. Besides that, they used projector media to show each part of the movements in rhythmic activity. Learning was done by physical education teacher so that teacher could provide direct examples of rhythmic movements. In line with the guidelines for rhythmic activity, the modification of the barongan dance with the traditional dance of Bantul regency was done by IGTB (Bantul Dance Teachers Association). Then, the students should watch the basic movements and barong characters that appear with the accompaniment of Javanese music to go along with the rhythmic motion activities. The duration of time also adjusts to the rules of fitness of students in carrying out activities. Besides that, students were also supposed to pay attention to the principle of rhythmic motion, namely low impact-low impact, low impact-high impact, high impact-high impact, high impact-low impact, high impact-low impact, and low impact-low impact. This study used one group t test (paired sample t test) with the proviso that the data used are normally distributed. The SPSS 16.0 for Windows program is used to calculate the t test statistic. This is done to process research data easier. The t test was carried out as a group because the time series design is used in this research. One group of samples with repetitive time was done to find out the effectiveness of the product being developed.

RESULTS

After knowing the pretest and the posttest data, then t test was then performed to determine whether there is a correlation between pretest and posttest as well as an increase in rhythmic activity. The following is a table of t-test results and increased rhythmic activity. Pretest and posttest for rhythmic activity had a correlation indicated by the significance value of 0.000. From the three evaluation aspects, it shows sig <0.05, so it can be concluded rhythmic activity of barongan dance modification is very effective for Physical Education learning in primary schools.

Normality Test

Normality test was done to test the data distribution while statistical analysis was used to find out the form of data distribution. The statistical analysis used is Chi Square which can be seen in the appendix. Data are stated as normal distribution if the significant value is more than 0.05. The normality test results can be seen per evaluation as follows:

<table>
<thead>
<tr>
<th>The Evaluation Aspect of Physical Education</th>
<th>Significance</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>0.255</td>
<td>Normal</td>
</tr>
<tr>
<td>Posttest</td>
<td>0.363</td>
<td>Normal</td>
</tr>
<tr>
<td>Affective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>0.096</td>
<td>Normal</td>
</tr>
<tr>
<td>Posttest</td>
<td>0.636</td>
<td>Normal</td>
</tr>
<tr>
<td>Psychomotor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>0.979</td>
<td>Normal</td>
</tr>
<tr>
<td>Posttest</td>
<td>0.139</td>
<td>Normal</td>
</tr>
</tbody>
</table>

Based on the data on the table above about the normality test calculation by Chi Square, it can be concluded that the data of all aspects are normally distributed.
Homogeneity Test
Homogeneity test is used to determine whether several population variants are the same or not. If the significance value > level of trustworthiness (P > 0.05), it means homogeneous, whereas if the significance value < level of trustworthiness (P < 0.05), it means it is not homogeneous. Based on the calculation of data obtained from the field, it can be explained as follows:

Table 3. Pretest and Posttest of Homogeneity Test of the Effectiveness of Rhythmic Activity Using the Modified Rhythmic Dance Model for Barongan Dance.

<table>
<thead>
<tr>
<th>Aspect of Physical Education</th>
<th>Significance</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive</td>
<td>0.297</td>
<td>Homogen</td>
</tr>
<tr>
<td>Affective</td>
<td>0.876</td>
<td>Homogen</td>
</tr>
<tr>
<td>Psychomotor</td>
<td>0.085</td>
<td>Homogen</td>
</tr>
</tbody>
</table>

From the result of Variant Homogeneity test using Levene statistics, it indicates a significance value greater than the level of trustworthiness, then the data can be said to be the same (homogeneous).

T test
After knowing the pretest and the posttest data, then t test was then performed to determine whether there is a correlation between pretest and posttest as well as an increase in rhythmic activity. The following is the table of results of t-test and increased rhythmic activity

Table 4. T-Test Results and Increased Rhythmic Activity

<table>
<thead>
<tr>
<th>Aspect of Physical Education</th>
<th>Mean</th>
<th>t count</th>
<th>Deviation</th>
<th>Significance</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive</td>
<td>82.166</td>
<td>-7.043</td>
<td>9.067</td>
<td>0.000</td>
<td>11.03%</td>
</tr>
<tr>
<td></td>
<td>91.233</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affective</td>
<td>78.166</td>
<td>-9.840</td>
<td>9.434</td>
<td>0.000</td>
<td>12.06%</td>
</tr>
<tr>
<td></td>
<td>87.600</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychomotor</td>
<td>81.333</td>
<td>-10.751</td>
<td>11.067</td>
<td>0.000</td>
<td>13.60%</td>
</tr>
<tr>
<td></td>
<td>92.400</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the table above, the pretest and posttest for rhythmic activity are correlated indicated by the significance value of 0.000. The increase in pretest and posttest in the cognitive aspect is shown by the t value of -7.043 at a significance of 0.000, so it can be concluded that the cognitive value before and after learning has increased significantly. The increase in the affective aspect pretest and posttest is shown by the t value of -9.840 at a significance of 0.000, so it can be concluded that the affective value before and after learning has increased significantly. The increase in the pretest and posttest in the psychomotor aspect is shown by the t value of -10.751 at a significance of 0.000, so it can be concluded that the the value of psychomotor before and after learning has increased significantly.
increased significantly. The contribution of rhythmic activity in barongan dance modification in Physical Education learning is 11.03% for cognitive aspects, 12.06%, for affective aspects and 13.60% for psychomotor aspects.

**DISCUSSIONS**

According to Ni'âm physical education is an educational process that utilizes physical activity to produce holistic changes in individual quality, either in physical, mental and emotional terms. With physical education, children do physical activities while getting an education, so developing physical potential, optimizing basic motion and also developing character [2]. According to Yuan Lin creative rhythmic activities refer the activities expressed by rhythmic creative body movements in music accompanied, and body movements of children creatively expressing external morphology and state of motion for specific things on the basis of self-observation, imitation, understanding and imagination [3]. According to Suharjana one of ways to introduce the rhythm is the pattern of steps. The steps to introduce this rhythm to students are: (1) The pattern of steps is a step that always falls on a count of one as in the usual steps; (2) Step 2 pattern, i.e. the step that always closes on the second count; (3) The pattern of step 3, which is a three-count step with the provisions of the usual first step going forward, while the second and third steps are placed in closing[4].

**The Effectiveness of Rhythmic Model of Barongan Dance for Physical Education Learning in Primary Schools**

Research data for effectiveness testing was obtained from SD Muhammadiyah Bantul Kota. The evaluation of rhythmic activity model of barongan dance modification was carried out 6 times with duration of 70 minutes in each meeting. The evaluation taken includes 3 areas of evaluation namely cognitive, affective and psychomotor. The research data consisted of pretest and posttest data from each evaluation. The effectiveness of the product was tested using a Pre-Experimental design with a single group time series design that is an experiment carried out without a comparison group and also without any initial tests. This model has the simple goal: to find out the effect of the treatment given to the group without regard to the influence of other factors.

Based on the effectiveness test at SD Muhammadiyah Bantul City for 6 meetings through barongan dance rhythmic modification in Physical Education learning, it can be concluded that Barongan dance modification can improve Physical Education learning outcomes. This is indicated by the value of psychomotor before and after learning which has increased significantly.

Improvement occurs because students have more knowledge than in the previous meetings after doing the activities repeatedly. This is based on the law of exercise learning theory proposed by Thondrike Rahyubi, which states that "the principle of training law shows that the main principle in learning is repetition, the more often the subject material is repeated the more it can be mastered[5]."

According to Niki Tsangaridou, Chrysostomos Sports education helps students become competent, educated, and enthusiastic sportsmen [6]. According to Elsa Silviana Tarigan Physical Education is an educational process that utilizes systematically planned physical activities aimed at developing and improving the entire realm, body, cognitive, affective and psychomotor of each student with the material presented is about sports, fitness and outdoor recreation [7].

In addition, based on The United Nations Educational, Scientific and Cultural Organization (UNESCO) recently called upon countries to act on the quality of physical education (PE) as an essential key point to learn life skills and to develop positive patterns of behavior. According to Zerf Mohammed physical education is an educational course related to the physique of the human body. It is taken during primary and secondary education and encourages psychomotor learning in a play or movement exploration setting to promote health [8].
Samsudin explains that physical education is a learning process carried out through physical activities designed to improve physical fitness, develop motor skills, knowledge and behaviors of healthy and active living, sportsmanship, and emotional intelligence. The learning environment is carefully regulated to enhance the growth and development of all physical aspects such as the psychomotor, cognitive, and affective of each student [9]. This is in line with the opinion of Rajarshi Kayal who says that movement is the keystone of Physical Education. It may be affected by physiological factors (physical fitness and body build), biomechanical factors (teaching movement skill effectively), sociological factors (competitor, team mates) and psychological factors (fear, anxiety, self-concept). So teachers should understand some of its dimensions [10]. Mardiana states that “physical education is an effort by using the activity of large muscles so that the educational process that takes place is not delayed by health problems and body growth that aims to develop organic, neuromuscular, intellectual and social areas”. Physical education is a medium to encourage motor development, physical abilities, knowledge and reasoning, appreciation of values (attitudes, mental, emotional, spiritual, and social), as well as the refraction of healthy lifestyles that lead to stimulating balanced growth and development [11].

According to Ni'am physical education is an educational process that utilizes physical activity to produce holistic changes in individual quality, both in physical, mental and emotional terms. With physical education, children can do physical activities while getting an education, developing physical potential, optimizing basic motion and also developing character [2]. Husdarta explains that physical and health education are essentially educational processes that utilize physical and health activities to produce holistic changes in individual quality, both in physical, mental and emotional terms. Physical education treats the child as a whole, as a total being, rather than just considering them in one-to-one physical and mental quality [12].

This study produced and developed an activity of a modified ARITMOTABA barongan dance. The product can be used by physical education teachers of primary school as a form of learning rhythmic activity. Physical education teachers as instructors and educators must be able to improve the quality of learning capabilities with various forms / models of innovative, varied, and creative learning. For further development, it needs other research involving larger and broader subjects, comprehensive and even larger scope of trial locations. Further development can also be carried out with similar research with different target subjects not only intended for Primary School students.

REFERENCES


