Modification of Hitball Games in Physical Education, Sports, and Health Learning in School

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Abstract

A small ball game is one of the materials contained within the scope of elementary school learning. The kind of small ball game such as Kasti, Rounders, Softball and Baseball. How the result applied of small ball game modification on Physical Education learning process 4th grade on elementary school. This research is a development research that aims to produce products in the form of Hitball game using procedural development model. The type of data used is qualitative and quantitative. The game of Hitball, has contributed to an increase in the student’s pulse rate by 50.97%. In addition, the results of the pulse rate of learners after learning can increase by 73.80% of the maximum pulse rate. From the result of the research, it is concluded that the game of Hitball is in accordance with Core Competencies and basic competencies of Physical Education on Elementary Class IV and can increase the intensity of student movement which is indicated by the increase of the average pulse as much as 50.97%..

Keywords:
Modification; Small Ball Game.

How to Cite


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INTRODUCTION

Physical education is the foundation for continuous sports coaching, which is an indispensible learning process for cognitive and social development (Rusli Lutan, 2004). Physical education also plays a role in stimulating involvement in sports and physical activity, laying the foundation for healthy living along the life and involvement in the social life of society (Rusli Lutan, 2004). Education is incomplete without physical education, and there is no physical education without media of motion. Motion as a physical activity is a natural foundation for man to learn to know the world and himself. According to Rusli Lutan (2001) that Physical Education is a series of subject matter that gives a real contribution in everyday life in an effort to increase the growth and development of physical and spiritual learners. Therefore the implementation of Physical Education should be more developed to a more optimal direction so that learners will be more innovative, skilled, creative, and have the freshness of physical and healthy life habits and have knowledge and understanding of human motion. Therefore, as one component of education which must be taught in schools, physical education has a very strategic role in the formation of the whole person (Toho Cholik Muthohir, 2007).

Pangrazi (2004: 4) states that penjasorkes are the stages of a public education program that contributes to the overall growth and development of the child, especially through movement experience. This is a learning program that gives attention to all the domain of learning, namely: (1) psychomotor, (2) cognitive and (3) affective.

Objectives Physical education in schools one of them is to provide motion skills for learners, in the hope that existing movement skills to be developed and enhanced into the development of specialist motion of certain branches according to the talents, interests and potentials of learners. The objective is contained in Article 25 paragraph 3 of Law no. 3 of 2005 on National Sport System. The contents of article 25, paragraph 3 are as follows: "Development and development of educational sports at all levels of education provides the freedom to learners to perform sports activities in accordance with the talent and interest".

The implementation of Physical Education in the Curriculum 2013 focuses on student interests. The Penjasorkes material in the 2013 curriculum for SD can be seen from the Core Competencies (CC) and Basic Competencies (BC) at different grade levels. The following will be shown Core Competence (CC) and Basic Competence (BC) for fourth graders (four) Primary School contains about small ball game material.

Table 1. Core Competence (CC), Basic Competence (BC), and Learning Material Physical Education Elementary School Class IV

<table>
<thead>
<tr>
<th>KI</th>
<th>KD</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Present factual knowledge in clear and logical and systematic language, in aesthetic work in movements that reflect healthy children, and in actions that reflect the child's faithful behavior and noble character</td>
<td>4.2 Practicing variations and combination of locomotor, non-locomotor, and manipulative base motion patterns in small ball games based on the concept of motion in various games and or traditional small ball sports</td>
</tr>
</tbody>
</table>

Small ball game is one of the material in physical education subject in elementary school level. The form of small ball game that is often used is kasti. The game uses some basic techniques of throwing, capturing, and hitting the ball. These three basic techniques require accurate targeting and good coordination between eyes and hands that are not owned by primary school-aged children. In capturing techniques, they tend to still have fear in doing these basic techniques. The purpose of small ball games is to develop all the domains of both cognitive, affective, and psychomotor through a team game activity that is applied through the activity of practicing variations and combinations of basic techniques of small ball games both throwing, hitting and catching. One type of small team ball game is a game of kasti, where there are techniques of throwing, catching and hitting.

The precision is needed when going to throw and catch the ball. But this is still rarely done because students tend to perfunctory when throwing and catching the ball. In addition to the technique of spanning the ball, in the game often the students are not about the ball. The small size of the ball and focusing the eyes on the moving ball can not be combined with the swing arm to hit the ball using a ball beater with a small cross section as well. So the impact of the ball with the baton has not happened and the stage of hitting the ball is often missed.

Based on the above background, in learning penjasorkes less optimal student movement intensity because the learning process is not done
through complex motion activities and not optimal in developing the three domains in learning (cognitive, affective, and psikomotor). Researchers want to facilitate students in performing basic techniques of throwing, capturing, and hitting in a small ball game. How is the role of the Hitball learning model in small ball game material subjects of physical education elementary school students? This study aims to produce Hitball game products that can be used as a media teacher physical education in delivering the material in small ball game learning. The development of Hitball game products is an effort in improving the complex motion skills of learners in small game ball games subjects physical education elementary school students.

The results of this study are expected to contribute as follows a) As stock experience in the field of research in developing a sport. b) Increase scientific development especially related to sports game development products. c) As a basis for the development of research results in the future. d) As a medium in learning Physical education in general and small ball games in particular. e) As an encouragement and motivation to the pemas teacher to modify a game that aims to create a new form of game so as to attract learners to follow subjects Physical education.

**METHODS**

This research is a development research that aims to produce products in the form of Hitball Game which is in accordance with the growth and development level of elementary school students. According to Borg and Gall in Sugiyono (2009), Research and development is a method or method used to develop or validate the products used in education and learning.

This development research uses a procedural development model, because this model is descriptive, that is a procedure that describes the steps that must be followed in producing the product. According to Wasis (2004) in each development can choose and find the most appropriate step for his research based on the conditions and constraints faced. Research and development seeks to produce a component in the education system through development and validation steps. It further mentioned that the research and development procedure basically has two main objectives: 1) developing the product, and 2) testing the effectiveness of the product in achieving the goal.

**Data Collection Instrument**

Instruments used in product development in the form of interviews, observation, questionnaires, documentation, pulse, and game learners in playing the game Hitball. Questionnaires used by experts in the form of a number of aspects that should be assessed feasibility. The items used in the questionnaire include the quality of a Hitball game, as well as general comments and suggestions if any.

**Data Analysis Technique**

Data analysis technique used is percentage to analyze and assess the subject of developer in assessing level of eligibility, quality, and acceptance of product in the form of data of psikomotor, cognitive, and affective aspect. The analysis technique used is descriptive analysis technique in the form of percentage.

Increasing the physical intensity with the game product indicator can make the learner move marked by the increasing of pulse after following small game of ball game. Analysis of data used to determine the increase in physical intensity is to know the results of pulse measurement of learners before and after follow the learning (using the product).

**RESULTS AND DISCUSSION**

The data obtained from the questionnaires
by skilled experts and learning experts is a guideline for declaring whether a small ball hitball modification product can be used for small-scale trials and large-scale tests. The following is the result of filling out a questionnaire from the experts of Penjas and the learning expert.

**Table 2. Average Score Results Expert Score**

<table>
<thead>
<tr>
<th>Experts</th>
<th>Results Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE Experts I</td>
<td>3,35</td>
</tr>
<tr>
<td>Learning Experts I</td>
<td>3,26</td>
</tr>
<tr>
<td>Learning Experts II</td>
<td>3,32</td>
</tr>
</tbody>
</table>

Looking at the results **table 2** the average score of the questionnaire scores conducted by each expert Physical education and learning experts obtained an average score of 3.31 (three point thirty-one) or in the “good / proper / clear” rating category. Therefore, it can be concluded that the game of Hitball for learning small ball game of Elementary School can be used for small-scale trials.

Implementation of small-scale testing of Hitball game products can be done well, but there are some obstacles that make this game can not be played to the fullest. The following are the obstacles that come after Hitball game products are tested on a small scale:

**Table 3. Constraints and Constraints on Small Scale Trials**

<table>
<thead>
<tr>
<th>Revised Reasons</th>
<th>Repairing Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too easy to turn off</td>
<td>The batter is turned off by means of the ball rolled over</td>
</tr>
<tr>
<td>the opponent</td>
<td>the safe line and captured by the defensive player.</td>
</tr>
<tr>
<td>Distance base 10</td>
<td>The base distance is brought closer from the safe line to 8</td>
</tr>
<tr>
<td>meters too far</td>
<td>meters</td>
</tr>
<tr>
<td>Unclear Field Boundaries</td>
<td>The field boundaries are clarified using cones and lines</td>
</tr>
</tbody>
</table>

(Source: 2017 Research)

The analysis technique used is the percentage for analyzing and assessing teachers Physical education in assessing the level of product quality against Hitball game products.

The results of research on teachers of physical education related to the acceptance of Hitball game products for learning Elementary Physical Education, obtained a description of aspects (1) the suitability of products with Competence Standards, basic competencies, and characteristics of learners, (2) the effect of the product on the improvement of cognitive domain, (3) the effect of the product on the improvement of the affective domain, (4) the effect of the product on the improvement of the psychomotor domain, (5) the effect of the product on the enhancement of the learner’s activity, and (6) the feasibility of Hitball game product. From these six points the results obtained that the game Hitball very good and appropriate for students so it can be used as a medium of motion in the physical education of small ball games.

The results of the pulse count of 40 learners are as follows:

<table>
<thead>
<tr>
<th>Pulse Rate</th>
<th>Before Learning</th>
<th>After Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVERAGE</td>
<td>79,35 times/minute</td>
<td>155,66 times/minute</td>
</tr>
</tbody>
</table>

(Source: 2017 Research)

From the data shows an increase in pulse rate of 50.97%. In addition, the results of the students’ pulse rate after learning has increased by 73.80% of the maximum pulse rate. These results also indicate compliance with the recommended exercise intensity that is 60-90% of the maximal pulse rate.

Based on data analysis, a hitball permeation can be used as a medium for small ball games. The result is because Hitball includes all the motion indicators of small ball game and softball ball. The basic motion of throwing the ball, catching the ball, and hitting the ball is very easy for students in this game so the game can run effectively.

The game of Hitball, has contributed to an increase in the student’s pulse rate by 50.97%. In addition, the results of the pulse rate of learners after learning can increase by 73.80% of the maximum pulse rate. These results also indicate compliance with the recommended exercise intensity that is 60 - 80% of the maximum pulse rate.

Increased pulse rate can be used as an indicator of increased physical intensity of learners. Physical intensity may increase due to pulse response due to physical activity of learners when playing a game of Hitball. The pulse of this response can be a measure of the increase in the pulse of learners in achieving the intensity of the exercise suggested. An increase in the average pulse response of 73.80% of the activities perfor-
med, is one indicator that the game Hitball can increase the physical intensity of learners in the learning process small ball game.

CONCLUSION

From this research can be drawn conclusion, among others: 1) Has the creation of game products Hitball game that can be used as a medium of motion small game material in learning pemas in school. 2) a hitball game can overcome the problems that arise from the learning of small ball material related to the mastery of basic techniques of throwing, capturing, and hitting the ball. This can be seen from the observation of the implementation of research where students can perform such basic techniques well so the game goes well. 3) Hitball games can increase the intensity of student movement in small ball learning. This is indicated by the increase in the students’ pulse rate.

REFERENCES

