



Development of Football Bowling Game for Football Learning Approaches

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Abstract

This research is motivated by the lack of adequate football and goal fields, so there is a need for modification in learning so that the learning process can be carried out more effectively. Modifications in learning include making the game a football learning approach that is adapted to conditions on the field. The purpose of this study is to develop a bowling football game model that can be used as an alternative approach to football learning. This research was conducted using research and development using the ADDIE model, namely analysis, design, development, implementation, evaluation. The sampling technique used saturated sampling to determine the sample of this study is using eighteen fifth grade students of MI Fastabiqul Khoirot Jambu for field tests. Before being tested on students, this game model has been validated by physical education learning experts and football game experts. The research data collection instrument used was a questionnaire. The data analysis technique of this research is qualitative and quantitative descriptive percentages. The results of field test data analysis, obtained an average of 82%. Based on the criteria that have been obtained from the field test results, the product development of this bowling football game meets the criteria can be used. So it can be concluded that this bowling football game can be used and applied as an alternative approach to football learning in fifth grade students of MI Fastabiqul Khoirot Jambu.

How to Cite

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INTRODUCTION

Physical education is one type of subjects taught in schools, be it elementary school, junior high school, senior high school. In physical education there are teaching and learning activities undertaken by teachers and students. "Learning is a process of behavior change and this change will occur if there is an interaction between students and their environment." (Husdarta and Saputra, 2013) Physical education is an educational process that utilizes physical activity aimed at developing and enhancing individuals organically, neuromuscularly, perceptually, cognitive, and emotional aspects of the national education system. (Rosdiani, 2012) With the objective of physical education, the teacher must set up learning. The physical education, sports, and health learning settings are essentially regulating the educational process that utilizes physical activity to produce holistic changes in individual quality, both physically, mentally, and emotionally. (Directorate General of Teachers and Education Personnel Ministry of Education and Culture, 2016)

The lack of physical education facilities owned by schools, requires physical education, sports and health teachers to be more creative to create equipment and field equipment that is appropriate to the conditions of students and their schools. A creative teacher will be able to create something new, or modify something that already exists but is presented in a more interesting way, so students do not feel bored. Modifying learning facilities and physical education learning media will not reduce student activities in conducting physical education, but on the contrary by modifying facilities and approaches in the form of games, the physical education learning process will be more enjoyable. "The modification approach can be used as an alternative in physical education learning in schools, because this approach considers the stages of development and characteristics of students, so students will take part in physical education lessons with pleasure." (Rahayu, 2016) By making modifications, physical education teachers, sports and health will be easier to present the material, without losing the meaning of what he provides.

In an effort to achieve the goal of physical education learning, one of which can be achieved through football learning activities. Football is a game that is very popular today and is in demand by many people ranging from small children, adults, even to parents also take part in this sport. This is evidenced by the many championships from the elementary school level, junior high school, high school and college level. Football itself is a team sport and requires good teamwork.

"Football is a sport that is played in an area that is open by two groups called teams. Each team has a goal. They face each other with the aim to put the ball into the opponent's goal." (Hidayat, 2017)

Based on the results of the preliminary study, researchers found that in MI Fastabiquil Khoirot Jambu school there were not enough football fields and goal posts to be used in football learning. With such conditions, learning modifications are needed so that the learning process can be carried out by utilizing the field or yard in the school even though it is not extensive. From the results of the preliminary study the researchers found a problem that could be used as research. Salain was based on relevant previous research namely with the title development of a modification model of football games for elementary school students with the results of the research being: 1) holahop goal football game. 2) The results of product effectiveness tests at Branti 3 Elementary School, Branti 2 Elementary School, and Candimas 3 Public Elementary School showed an average increase in pulse rate of around 50.25%. 3) The results of product acceptance tests on psychomotor, affective and cognitive aspects get an average of 87.62% and it is concluded that the development of a modification model of football games for elementary school produces a modification product of the holahop hurdles football game which is effective and acceptable in the process of learning physical sports education and health in elementary school. (Supriyanto, 2012) So the development of learning models with games is very effective to improve learning.

The objective to be achieved in this study is a bowling football game model that can be played heterogeneously in the process of learning football in physical education even though the means and infrastructure or facilities are less supportive by modifying it. Through the development of this bowling football game, it is hoped that it can help the physical education learning process especially in football learning and this game can be used as an alternative in football learning and can be used as a reference or material for physical education, sports and health teachers to be more varied in making game models for students in accordance with the characteristics of students and the conditions that exist in schools so that physical education learning can be implemented optimally and can help the learning process so that it can achieve the goals to be achieved. The bowling football game is a football game that is modified aspects of the rules of the game, the tools and facilities used and how to play it with the bowling ball game approach and can be played by heterogeneous or gender-different teams. This bowling

football game is a combination game between football and bowling. The rules of the game used have also been adjusted to the characteristics of elementary school children, namely by considering the safety, ease and attractiveness of the game.

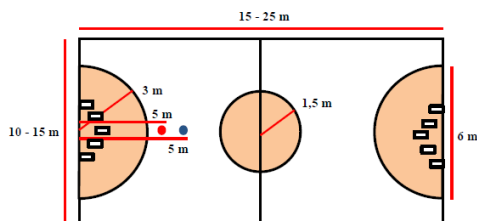


Figure 1. Bowling Football Field

Information:

- : Bowling pin (mineral water bottle wicket)
- : Distance
- : Penalty point 1
- : Penalty point 2

METHODS

This research was conducted using "Research and Development". Research and development methods are research methods used to produce products and test these products. (Sugiyono, 2012) This study uses the ADDIE model. The ADDIE development model is one of the system design models that shows the basic stages for developing products used in education. (Branch, 2009) ADDIE model has 5 (five) main steps, namely:

Analysis, researchers sought information on physical education, sports and health teachers in MI Fastabiquil Khoirot Jambu by providing an open questionnaire that researchers used as a preliminary study. From the results of the open questionnaire the researcher obtained information that could be used as a problem.

Design, researchers do product manufacturing planning in accordance with existing problems in the field. To overcome this problem, the researchers sought a solution so that football learning could run effectively, namely by making the development of a football game model so that it could be used in the physical education learning process at MI Fastabiquil Khoirot Jambu. The development of this game model is expected to be an alternative approach to learning football by utilizing the existing page area.

Development, researchers develop products according to what was planned in the design stage in the form of a football game model. This game model is designed as needed so that it can be used as an alternative in football learning. After the product is finished, the researcher validates the physical education learning expert and the football game expert to get suggestions,

input, revision and validation of the product before being tested on students. Furthermore, if it gets input from experts, the researchers make revisions and improvements to the product, so that the product is better in accordance with the expert input.

Implementation, the researcher applied the revised and validated expert product to be tested on students to find out whether the game model developed was in line with what was planned and could be used as an alternative in the football learning process at MI Fastabiquil Khoirot Jambu. In the field testing of this football game model, students are given a closed questionnaire. With this questionnaire the researcher can find out the results of the developed football game model. Researchers conducted field tests on all fifth grade students of MI Fastabiquil Khoirot Jambu. After completing the football game model, the students were given a closed questionnaire so that the researcher could find out the results of the developed game model whether the percentage obtained entered into the category could be used and could be used as an alternative in the physical education learning process on football material or not.

Evaluation, the evaluation stage is the final stage of a study. From the results of the final trial in the form of a questionnaire, the researcher knows how much the percentage of the success of the developed game model then makes conclusions based on the results of the study. Is the game model developed successfully in accordance with the expectations of researchers and can be used as an alternative in the physical education learning process on football material.

In sampling techniques, researchers use saturated sampling. "Saturation sampling is a sampling technique when all members of the population are used as samples." (Sugiyono, 2012) This is often done when the population is relatively small, less than 30 people ". Researchers used a saturated sampling technique to make the entire population as a sample of 18 students for the field test. Data collection in this study used a questionnaire. "Questionnaire is a data collection technique that is done by giving several questions or written statements to respondents to answer." (Sugiyono, 2012) There are 3 kinds of questionnaires used by researchers, namely: First open questionnaire is used as a preliminary study to obtain problems that exist in schools . Respondents read the items themselves and write answers in the questionnaire freely or in accordance with the wishes of the respondent. This questionnaire was given to physical education, sports and health teachers in order to obtain important information about the state of the school to be addressed. Second, semi-open questionnaire, used when col-

lecting data from experts involved in the assessment of products developed by researchers. In the list of questions given 5 choices of answers that must be chosen as desired and experts are free to give reasons for suggestions for better developed products. This questionnaire was given to physical education learning experts and football game experts. The three closed questionnaires are used when collecting wider field product trial data. This questionnaire in the form of choice of questions gives the freedom for respondents to provide answers or responses that have been determined by researchers, can be in the form of "yes" or "no" and can also be in the form of multiple choice. Thus there is no opportunity for respondents to use other answers or their own desires.

In this study, researchers used qualitative and descriptive data analysis techniques in the form of percentages. Qualitative analysis was obtained from the results of the open questionnaire and semi-open questionnaire in the form of criticism and suggestions from physical education experts and football game experts in the form of writing as input for product revision materials. Whereas descriptive quantitative analysis of percentages is used to analyze the results of field test data collection. The formula for processing data in the form of descriptive percentages (Sudijono, 2014) is as follows:

$$P = \frac{F}{N} \times 100\%$$

Information

F : The frequency that the percentage is looking for

N : Number of cases (number of frequencies from the number of individuals)

P : Percentage figures

According to Arikunto (2013), if the data analysis is in the form of a percentage, then the conclusions that can be drawn are adjusted to the problem. The following classification of the percentage of categories that will be used is **Table 1.**

Category	Percentage	Conclusion
Good	> 76%	Used
Pretty good	56% - 75%	Used
Not good enough	40% - 55%	Not used
Bad	< 40%	Not used

RESULTS AND DISCUSSION

The results of the study, researchers conducted a preliminary study in MI Fastabiqul Khoirot Jambu to physical education, sports and health teachers by providing an open questionnaire to answer the questions that had been made by researchers. The teacher writes himself the

answer to the question in truth. So finding some things that become researchers' notes to be used as material to obtain information that can later be used as a problem. From the results of a preliminary study using an open questionnaire, at MI Fastabiqul Khoirot Jambu on physical education, sports and health teachers, researchers got some information from the questionnaire, namely, he wrote the problems that occur in the learning process at the school.

The problem is analyzed then make a product that suits your needs. So the researchers made a bowling football game product that can be used as an alternative and overcome existing problems and take advantage of the existing page area. The product model of the football game made is then validated to physical education learning experts and football game experts before being tested on students. The results of the evaluation of physical education learning expert products on the products developed are as follows

Table 2.

Table 2. Evaluation Results of Physical Education Learning Expert Products

Statement of Physical Education Learning Experts
The game model is in accordance with the material available at school
The game model is in accordance with the characteristics of fifth grade elementary school students, because the character of fifth grade elementary school students likes new things
The tools and facilities used are safe, it's good to replace the original ball with a plastic foam-lined ball so it is lighter and not dangerous
The game model is safe to play by fifth grade elementary school students, taking into account the rules and ways of playing female students that are made a little different, so that even though players in a heterogeneous team this game is safe to play
The game model can be played by skilled students or not, considering the ability of each student is different especially the ability between male and female students
The game model can be played by male and female students, looking at the rules and how to play this game, it certainly can be played by male and female students. But please note, whether with these regulations will make passive students move especially female students
Differences in regulations need to be made. Seeing the tendency of female students who are difficult to do football games and do not want to come into play if playing with male students because of fear.
Use the time in making the game, do not fixate on the target number that must be achieved. Because it relates to learning

For player constraints or half circles please correct. Can be expanded so that students have no difficulty in passing to friends in the opponent's semicircle
Use only one referee because the field is narrow. The presence of two referees on the right and left sides of the court will make the field narrower
In dividing groups, please pay attention to the number of male and female students available

While the results of the evaluation of football game expert products on the products developed, as follows **Table 3**.

Table 3. Evaluation Results of Football Game Expert Products

Statement of Football Game Experts
The clarity of the game rules is clear, that is, each rule has been elaborated so that it becomes clear
The clarity of how to play is quite clear. Please explain just the gist of how to play because the rules cover everything but not too long
Game security is applied already safe. Broadly speaking, it includes regulations that exist in the actual football game, although there are some rules that have been modified
Safety of facilities and equipment used is safe. It's good to replace balls that are lighter than the standard balls used in football games
The suitability of the bowling football game with the original football game is quite appropriate. Some rules, how to play and the tools used are modified so that they are different from real football, but in general the game is made not much different from the real football
Please consider the match system used. In the original football game uses a time system in the game, not a target point system that must be achieved
Please clarify and improve the field image

After validating the expert, the researcher revised the product according to expert advice and input. Product results that have been revised by researchers to test students using field tests. The researcher applies the product that has been revised and validated by the expert to be tested in the field to students to find out whether the developed game model is in accordance with what is planned and can be used as an alternative in the football learning process. The results of the analysis of research data from the 18 student field test questionnaire were as follows **Table 4**.

Table 4. Results of Field Test Research Data

Indicator	Percentage	Cat-egory
The bowling football game is easy to play	78%	Good
Students can play the bowling football game model	83%	Good

Students know about how to play bowling football games	78%	Good
How to play bowling football game is easier than real football	83%	Good
Students understand bowling football rules	83%	Good
Bowling football game makes more active moves	78%	Good
Easy to score points or goals in a bowling football game	72%	Pretty good
Can work with teammates in a bowling football game	94%	Good
The bowling football game is safe to play	89%	Good
Like the bowling football game	78%	Good
Exciting bowling football game	83%	Good
Fun bowling football game	83%	Good
Want to play bowling football game again	89%	Good

CONCLUSION

Based on the results of the analysis of field test data obtained an average of 82%, based on predetermined criteria, the product development of this bowling football game meets the criteria well and can be used, so it can be applied to fifth grade students of MI Fastabiquil Khoirot Guava. From the overall results of research and development obtained it can be concluded that this model of bowling football game can be used and applied to fifth grade MI Fastabiquil Khoirot Jambu students as an alternative approach to football learning.

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