



Development of the Godorboy Game Model in Physical Education Learning for Elementary School Students

Agimis Akbar Nur Salam^{1*}, Agus Pujianto²

¹²Faculty of Sports Sciences, Semarang State University Semarang, Indonesia

Keywords

primary school;
play based learning;
Physical Education

Abstract

This research aims to develop a suitable, practical, and effective Godorboy game model for use in Physical Education lessons for grade five elementary school students. This research uses a Research and Development (R&D) approach by applying the ADDIE model, which consists of the Analysis, Design, Development, Implementation, and Evaluation stages. The product is validated by experts and tested through small-scale and large-scale trials. The small-scale trial involved 30 students, while the large-scale trial involved 73 students from two schools. Data were collected through questionnaires, observations, and documentation, and analyzed using percentage techniques. The results show that expert validation reaches 97.5% (the category is very appropriate). Small-scale trials reached 78.2% (good category), while large-scale trials reached 97.6% and 95.8% (very good category). These findings suggest that Godorboy's game model is feasible, practical, and effective in increasing student participation and engagement. Therefore, this model can be utilized as an alternative strategy in Physical Education.

✉ Corresponding author :
E-mail: agimisakbar177@students.unnes.ac.id

INTRODUCTION

Physical Education learning in elementary schools still faces problems in the form of low student participation due to the use of conventional methods, the goal is to create an environment and learning activities that allow students to be actively involved in developing their abilities and potential. Through education, it is hoped that students can have spiritual spirit, self-control skills, good personality attitudes, intelligence, noble morals, and skills needed for themselves, society, nation, and state (Iswanto & Widayati, 2021). Physical Education is one of the subjects taught in schools and has different characteristics compared to other subjects. These characteristics include the purpose of learning, how it is implemented, and the tools or media used in the process. Physical Education is an important part of the overall educational process, aiming to help the growth of the physical and ethical qualities of children in school, so that they are ready to face life, work, and can contribute to the nation. More specifically, Physical Education plays a role in improving health, physical ability, organ potential, movement skills, and instilling moral values such as patriotism, cooperation, courage, perseverance, and confidence (Sahruni et al., 2024).

Elementary school students are at a very important period of growth in human development. which is very crucial in human life. At this stage, a student's development includes various aspects such as physical, thinking, interacting with others, and their feelings. Physical Education, Sports, and Health (Physical Education) at the elementary school level not only aims to improve physical fitness, but also helps shape students' character and accustom them to a healthy life by physical activity (Simanullang et al., 2024). Therefore, Physical Education plays an important role in the elementary school curriculum to help increase activeness, participation, and form students' positive attitudes towards physical activity.

The purpose of physical learning, exercise, and health is basically in accordance with the meaning of Physical Education itself. Physical Education, Sports, and Health aims to be an educational process that improves human quality and helps individual development by using physical activity as a means of learning. Sports in education encompass a wide range of programs that are structured in a directed manner, ranging from traditional methods of guiding school-age children to a neater and more modern approach, which can be applied to individuals and groups with diverse backgrounds, social statuses, and ages (Arisandi & Neldi, 2023).

According to Sari (2024) Physical Education is essentially a learning process that utilizes physical activity as a medium to achieve a comprehensive change in individual qualities. This approach not only emphasizes the physical aspect, but also includes mental development as well as its application in daily life.

Student characteristics include various aspects or qualities possessed by students, such as interests, attitudes, motivation in learning, learning styles, thinking skills, and their initial abilities. Meanwhile, character is a characteristic trait inherent in a person, which is formed due to the influence of the surrounding environment. Education has an important role in improving the quality of human resources and the progress of a nation. Therefore, progress in education is very closely related to the progress of the nation itself. In the entire learning process in schools, learning activities are the most important part in determining whether the education provided is of good quality or not. Elementary school-age children tend to like to play, like to move actively, like to work in groups, and like to convey what they know directly. However, during this period, they also often face various obstacles in the process of growing and learning, such as difficulties in learning, reading, arithmetic, and writing (Widiyani et al., 2024).

However, based on observations in several elementary schools, Physical Education learning still often uses the same method, namely conventional methods, and is less diverse. This condition makes students less enthusiastic and quickly feel bored when taking lessons, so their participation in the teaching and learning process becomes less active. Traditional games are play activities that have been widely known by children and have educational value.

Traditional games are a form of play activities that are very familiar to the world of children. In addition to having a positive impact on health, physical fitness, and children's growth and development, this game is also full of character values, such as honesty,

cooperation, sportsmanship, mutual aid, responsibility, and discipline. These various values have an important contribution to character formation from an early age. Therefore, traditional games are seen as more effective in increasing student engagement and providing a pleasant learning experience (MR, 2021). In terms of Physical Education subjects, traditional games contain various physical activities that involve interaction and cooperation between students. Many types of traditional games can help improve students' basic movement skills, such as walking, running, jumping, and other movements (Dike et al., 2023).

Some research suggests that playing traditional games can help improve elementary school children's basic movement skills. Previous research has shown that incorporating traditional games in educational learning helps increase student activeness and engagement in learning, such as locomotor, non-locomotor, and manipulative motion (Tunru et al., 2024). In addition, other research shows that the game of grobak sodor specifically helps improve the movement skills of elementary school students (A. I. Saputra & Zawawi, 2023). This shows that the godorboy game has a strong relevance to strive for the development of basic movement of elementary school students.

Games are a very strategic approach in Physical Education, sports and health because they can build an active, interesting, and fun learning atmosphere. This is in line with the opinion (Subekti et al., 2020) which states that games are an effective means of increasing student involvement due to the competitive and collaborative nature of games, so that they can encourage students to be more active in the learning process.

Modified games are a special form of a game that undergoes changes to certain rules. These changes are made to adjust to the needs and abilities of the players, the characteristics and experiences of the players, as well as the conditions of the facilities and equipment available (Batiurat et al., 2023).

In line with this opinion, (Fikri et al., 2022) stated that modified games are a special form of games that undergo adjustments to the rules to suit the needs and abilities of the player. Furthermore, based on the experience of implementing Physical Education, Sports, and Health (Physical Education) learning in football, football, and basketball game materials, there are still various obstacles that can reduce the effectiveness of the learning process, especially the limitations of educational facilities and infrastructure owned by schools. This condition requires Physical Education teachers to be more creative in utilizing and optimizing the available facilities and infrastructure. Therefore, there is a need for modifications in the implementation of learning, both in terms of facilities and infrastructure as well as the rules of the game used.

Godorboy is a traditional game development inspired by elements of the game gobak sodor and boy-boyan, which are modified to suit the characteristics of elementary school students. The game is designed to increase student activity and engagement through dynamic, interactive, and fun play activities, as well as coordination and agility skills.

The development of the Godorboy game is expected to be able to become an innovative, interesting, and fun alternative media for Physical Education learning for teachers in improving students' basic movement skills. The game is designed with the main objective of earning as many points as possible through team-based collaboration as well as engaging in dynamic and active movement activities.

The Godorboy game is played by two teams, namely the attacking team and the defensive team. Each team consists of five 5 vs 5 players. The game is carried out in two rounds, with a duration of 3 minutes for each round. Through simple rules and game forms, Godorboy is able to actively involve students and support the achievement of Physical Education learning goals in elementary school.

Previous research has shown that the development of traditional games effectively increases student activity and engagement. Research by (Sukriadi & Mustamiroh, 2024) showed that modified boy-boyan games have high validity and practicality and are effective in increasing student participation. Another study by (Yusdiantara et al., 2024) showed that the Bolgeb game is very suitable for use in Physical Education learning. Although previous research has shown that traditional games are effective in improving student participation and basic movement skills (Tunru et al., 2024), most of those studies focused on the development and

implementation of one type of traditional game separately. Similarly, other studies have shown that modified traditional games are valid, practical, and effective in Physical Education learning (A. Saputra et al., 2024). However, this approach tends to provide a limited variety of learning activities and has not integrated various elements of traditional games into one structured learning model. Therefore, this study offers a new contribution through the development of the Godorboy game model, which integrates elements of gobak sodor and boy-boyan into one structured, engaging, and adaptable learning model suitable for elementary school students. Thus, this study aims to develop a feasible, practical, and effective Godorboy game model for fifth-grade elementary school Physical Education learning.

METHODS

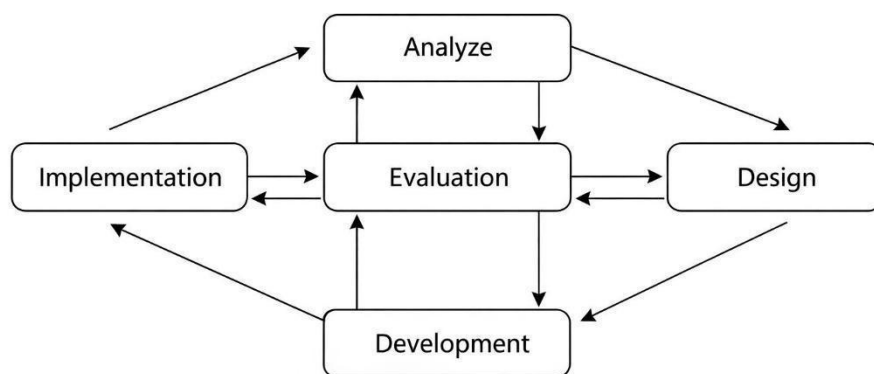


Figure 1. ADDIE Stages

This type of research is Research and Development (R&D) with the ADDIE model which includes the Analysis, Design, Development, Implementation, and Evaluation stages.

The ADDIE stage in this study includes the analysis stage conducted through observation and interviews to identify Physical Education learning problems, the design stage by designing a modified Godorboy game model, the development stage through product validation by game experts and learning experts, the implementation stage through small-scale trials at SD Negeri 06 Sima (30 students) and large-scale trials at SD Negeri 02 Walangsanga (39 students) and SD Negeri 01 Sima (34 students), as well as the evaluation stage which is carried out based on the results of expert validation and trials to improve the product to be more effective and in accordance with the characteristics of students.

The research instruments used were questionnaires with a Guttman scale (Yes/No), observation sheets, and documentation. The questionnaire was used to find out the students' response to the developed game model.

The assessment indicators in the questionnaire include aspects of student activity, ease of play, level of enjoyment, and student involvement in learning.

Data were collected using questionnaires and analyzed using the percentage technique:

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

P = Percentage score sought

f = Score obtained by validator

N = Maximum score

Table 1. Instrument Percentage Classification

Percentage	Category
81% – 100%	Highly Worth It
61% – 80%	Worthy
41% – 60%	Quite Decent
21% – 40%	Less Worthy
0% – 20%	Not Eligible

RESULTS AND DISCUSSION

This research is a development research that aims to produce a Godorboy game model that is suitable for use in Physical Education learning in grade V elementary school students. The development process is carried out through the stages of the ADDIE model, namely analysis, design, development, implementation, and evaluation.

Based on the results of observations and interviews with Physical Education teachers, learning is still dominated by conventional methods with limited variations. This condition causes student involvement and participation in learning to be not optimal. Therefore, the Godorboy game model was developed as a more interesting, active, and fun learning alternative.

Stages of Analysis

Based on the results of observations and interviews with Physical Education teachers, it was found that learning is still dominated by conventional methods with limited variations. This condition causes student involvement and participation in learning to be not optimal. Students tend to be passive and easily feel bored when participating in learning activities.

Based on these problems, the Godorboy game model was developed as an alternative to learning that is more interesting, active, and fun. The game is modified from the traditional game with adjustments to the rules, number of players, and equipment to suit the characteristics of elementary school students.

Expert validation

Product validation is carried out by two experts, namely game experts and learning experts. The results of the expert assessment are presented in the following table.

Table 2. Expert Validation

Types of Validators	Score	Maximum Score	Percentage	Category
Game Expert	39	40	97,5%	Highly Worth It
Learning Expert (Elementary School Teacher N 06 Cement)	39	40	97,5%	Highly Worth It



Figure 2. Filling of Learning Experts

Based on **Table 2**, product validation is carried out by two experts, namely game experts and learning experts. The validation results showed that the Godorboy game model obtained a percentage of 97.5% from each expert with a very decent category.

However, there are several suggestions for improvement from experts, including: increasing the target size, adjusting the target distance to students' abilities, reducing the number of players to make the game more effective, and providing balanced opportunities between male and female students. Based on these inputs, revisions were made before the field trial.

These results show that Godorboy's game model has met the feasibility aspects in terms of content, game rules, security, and suitability with the characteristics of elementary school students. Student Response

Small-Scale Trials

Small-scale trials were carried out on 30 students at SD Negeri 06 Sima. Based on the results of the questionnaire, the number of "Yes" answers was obtained as many as 352 out of a total of 450, so that a percentage of the following was obtained:

$$P = \frac{352}{450} \times 100\% = 78.2\%$$



Figure 3. Filling in Small-Scale Student Responses

The results fall into the good category, which shows that Godorboy's game model is already worth using, although it still needs some improvement. At this stage, students begin to show increased activity and enthusiasm, but there are still obstacles in terms of the number of players and the difficulty level of the game.

Large-Scale Trials

The results of the large-scale trial are presented in the following table.

Table 3. Large-Scale Trial Results

Types of Ex- periments	School	Students	Quantity (N)	Yes (F)	Percent- age	Category
Large Scale	SD Negeri 02 Walangsanga	39	585	571	97,6%	Excel- lent
Large Scale	SD Negeri 01 Sima	34	510	489	95,8%	Excel- lent



Figure 4. Filling Out Large-Scale Student Responses

Based on **Table 3**, the results of large-scale trials show a significant improvement compared to small-scale. Students look more active, enthusiastic, and engaged in learning. Godorboy's game is considered easy to understand and able to create a fun learning atmosphere.

Product Revision

Product revisions were made based on expert suggestions and test results, including increasing the target size, adjusting the target distance to students' abilities, reducing the number of players in a team, and simplifying the game rules, which led to improved effectiveness, ease of use, and product quality, as evidenced by the increase in results from small- to large-scale trials, showing that game modifications adapted to students' characteristics can enhance the effectiveness of Physical Education learning.

Final Products

The final product of this study is a refined Godorboy game model adapted to the characteristics of elementary school students, which fosters cooperation and sportsmanship, increases student engagement in learning, makes learning more engaging and enjoyable, and is therefore suitable for use as an alternative Physical Education learning model in elementary schools.

The results of this study show that the Godorboy game model is effective in increasing student participation in Physical Education learning. This effectiveness can be seen from the significant improvement after the revision process, which shows that the development stages in the ADDIE model play an important role in refining the learning model. The adjustments made to the rules of the game, the number of players and the equipment contribute to making the game more in line with the characteristics of elementary school students, who tend to be active and prefer interesting learning activities. These findings are consistent with previous research showing that game-based learning can increase student engagement and

participation in Physical Education (Tunru et al., 2024). In addition, research by (Sukriadi & Mustamiroh, 2024) also shows that modified traditional games are effective in increasing student activity and motivation. This shows that the use of modified and interactive games can create a more enjoyable and meaningful learning environment. The advantage of Godorboy's game model lies in its integrated approach, which combines elements from various traditional games into a single learning activity. This integration provides a more diverse movement experience and encourages collaboration, coordination, and social interaction between students. As a result, students are not only physically active but also socially engaged during the learning process.

Therefore, Godorboy's game model can be considered an effective alternative learning strategy for Physical Education, especially in elementary schools with limited facilities. The simplicity and adaptability of this game make it easy for teachers to apply it without the need for complicated equipment.

However, the study was limited to fifth-graders in a specific school group. Further research is recommended to test this model at different levels of the classroom and educational environment, as well as to examine its impact on other aspects such as learning motivation, social skills, and physical fitness.

CONCLUSION

This research succeeded in developing the Godorboy game model as a feasible, practical, and effective game-based learning medium to be used in Physical Education at the elementary school level. The results of this study show that the developed model is able to increase student participation, engagement, and activeness during the learning process. The integration of modified traditional games into structured learning models creates a more interactive, fun, and meaningful learning experience. Therefore, this research contributes to providing alternative learning strategies that can improve the quality of Physical Education, especially in schools with limited facilities.

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