



The Development of a Short-Distance Running Learning Model Based on Colorful Balls Run Games for Phase C Students

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Abstract

This study aims to develop a short-distance running learning model based on colorful balls run games for phase C students at elementary school 106 Bengkulu City. This research is a type of Research and Development (R&D) employing the ADDIE development model (Analysis, Design, Development, Implementation, Evaluation). The method used is descriptive qualitative. The research population consisted of phase C students at elementary school 106 Bengkulu City, with the sampling technique using total sampling. The research instruments included observation, interviews, questionnaires, and documentation. Based on the validation results, material experts obtained a score of 92% and media experts obtained 88%, both categorized as "very feasible." The small group trial involving 10 students resulted in an average percentage of 79%, categorized as "feasible," while the large group trial involving 40 students achieved an average percentage of 91%, categorized as "very feasible." Based on these findings, it can be concluded that the short-distance running learning model based on colorful balls run games is feasible to be used as a learning model for phase C students at elementary school 106 Bengkulu City.



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INTRODUCTION

Education plays a crucial role in people's lives as a planned and conscious effort to create a learning environment that allows learners to develop their potential, both in spiritual, personality, intelligence, moral, and skills that benefit themselves and society.

In general, education is a human effort to cultivate and develop physical and mental potential in accordance with societal and cultural values. Education and culture interact with each other and support each other in the process of progress (Rahman et al., 2022).

Education is the process of humanizing or humanizing humans. Therefore, every individual must be respected for his rights. Students are not machines that can be controlled at the will of the teacher, but a generation that needs to be guided to develop into independent individuals, think critically, and have good morals.

Education aims not only to form individuals who can meet basic needs such as food, drink, clothing, and shelter, but also to develop human beings as a whole in accordance with the concept of humanization (Ujud et al., 2023).

Physical Education, Sports and Health (PJOK) is a subject that has a great

contribution to supporting the achievement of overall educational goals. The purpose of PJOK Lessons can be achieved, if the materials taught are well and correctly. According to Lutfhi & Rahayu, (2022) Athletics is a physical activity that involves dynamic and harmonious basic movements, such as walking, running, jumping, and throwing.

Athletics also serves as a tool for physical education in an effort to improve biomotor abilities, such as strength, endurance, speed, flexibility, and coordination. In athletics, there are three types of numbers that are often contested, namely walking and running numbers, jump numbers, and throwing numbers (Titi Suwarti, 2020). According to Irfan Arifianto & Raibowo, (2020)

Movement activities in athletics are not only oriented towards achieving achievements, but are also useful for supporting a person's health and physical fitness. One of the parts of the athletic sports taught in schools is learning to run short distances.

Short-distance running learning in schools tends to use an achievement sports approach like that of adult athletes, without adjusting to the needs of children. While school children prefer to play which eventually children in learning

athletics find short-distance running numbers unpleasant or boring. Teachers continue to provide athletic learning materials, especially in the short-distance running numbers, with an emphasis on the results achieved by the students, regardless of the process they are undergoing.

Even more unfortunate, the techniques used are not attractive, so that students lose motivation to master basic athletic movements (Azis, 2020). Short-distance running is a physical activity that mainly involves the leg and arm muscles, and is based on the knowledge and values contained in it (Rahadian, 2019). Short distance running is a lesson in physical education, for which students are expected to be able to do basic techniques of short distance running.

Physical education learning in elementary school, short-distance running is taught as part of efforts to improve students' motor skills, especially in terms of speed, coordination, and endurance. Various game activities in elementary schools contribute greatly to the development of muscle, nervous, organ function, as well as the mental and personality aspects of students (Pertiwi, T. S., Sutisyana, A., & Sihombing, S. 2017).

In addition, this material also aims to instill active and healthy living habits from an early age. Through short-distance running exercises, students can develop awareness of the importance of physical fitness and benefit in physical, mental, and social aspects. Physically, running exercises help improve muscle strength, agility, and *cardiovascular endurance*.

From the mental side, students learn to be disciplined, focused, and have the determination to reach the finish line. Meanwhile, from the social aspect, this activity also trains sportsmanship, cooperation, and a healthy competitive spirit among fellow students. Learning to run short-distances, often called *sprints*, at the elementary school level uses a distance of 60 meters, because the distance is also a sprint run that is done at a high speed.

The process of running 60 m is similar to running a distance of 100 m, 200 m, and 400 m, but the difference lies in the use of power that varies according to the distance traveled. However, the basic technique of running and how to complete the race remain the same at all distances (Indra, 2023).

Motivation is one of the factors that encourage students to want to learn. Learning motivation can be classified

into two, namely intrinsic motivation (a state of circumstances that originate from within the student himself that can encourage him to take learning actions) and extrinsic motivation (a state that comes from outside the individual student that encourages him to carry out learning activities). Appropriate learning methods can result in an effective and enjoyable learning experience.

According to Tanjung et al., (2024) The learning method that can be applied is practicing using games or *games*. One of the main goals of the application of learning methods is to improve students' understanding of the material taught. For example, by using active learning methods, learners can be directly involved in the learning process, such as discussing, conducting experiments, or working in groups.

This not only makes learning more engaging, but also helps learners remember information better. In addition, learning methods can also help develop students' social and emotional skills. Primary school, especially in phase C, is a very important period in child development.

Phase C in the independent curriculum is intended for students in grades 5 and 6, where students can demonstrate the

ability to practice the modification of various basic movement patterns and movement skills, based on the application of correct movement concepts and principles, apply the concepts and principles of activities for the development of physical fitness, as well as healthy living behavior patterns, showing personal and social responsibility behavior over a longer period of time consistently, as well as believing in the values of physical activity (Handayani et al., 2023).

Through games, they learn to interact with peers, understand the rules, and appreciate sportsmanship. The game also provides an opportunity for children to have fun and release stress after studying in class. This activity is not only fun, but it also helps children develop new skills and build confidence.

METHODS

Research *and Development* is a research approach that aims to design and test the effectiveness of products made (Wulandari et al., 2024). Development research can be defined as a method that aims to discover, develop, improve, and create products or media that meet certain criteria.

In this study, the researcher used the ADDIE research model. Cahyadi, (2019)

said that the ADDIE model consists of five phases, namely analysis, design, development, *implementation*, and *evaluation*.

Development research is an approach in research that aims to create, develop, or improve products, models, or methods based on the results of in-depth research and analysis and then test the effectiveness of the product.

This research was carried out on April 24 - May 29, 2025. The location of the research was carried out at ELEMENTARY SCHOOL 106 Bengkulu City, which is located at Jln. Padat Karya 12, Kel. Sumur Dewa, Kec. The population in this study is 50 5th grade C students at elementary school 106 Bengkulu City. This study uses *the total sampling* technique, where *total sampling* is a sampling method that uses all members of the population as samples. The sample of this study is grade 5 which totals 50 samples.

The data analysis technique used in this research and development is in the form of descriptive analysis techniques. The qualitative data is then converted into a numerical scale with a *Likert* scale in the form of a percentage which is used to analyze the results of data collection for small group trials and large group tests. In

this small group trial stage, researchers involved 10 students. After the small group stage is completed, then the large group of researchers will be tested involving 40 students.

To find out the validity of the *Colorful Balls Run Games-based learning model product*, it is necessary to go through the validation stage first. Product validation aims to determine the level of validity of a product.

Furthermore, the scores of the validity test questionnaire results obtained were analyzed using the formula:

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

Information:

P = Percentage of Students' Answers

F = Number of Respondents' Answers

N = Respondent Score

Source: (Kaukaba et al., 2022)

The score results that have been obtained based on the analysis of the data of the questionnaire sheets that have been filled out are then interpreted into the criteria contained in the table below:

Table 2. Percentage Classification Guidelines

Percentage	Criterion	Information
0% - 20%	Very Less Worthy	Revision Needed
21% - 40%	Less Worthy	Revision Needed
41% - 60%	Quite Decent	No Revision Required
61% - 80%	Proper	No Revision Required
81% - 100%	Highly Worth It	No Revision Required

Source: (Kaukaba et al., 2022)

RESULT

The results of the feasibility assessment of the learning model based on *colorful balls run games* were validated by 2 experts, namely material experts and media experts. The results of the assessment by material experts and media members can be seen in the following graphic:

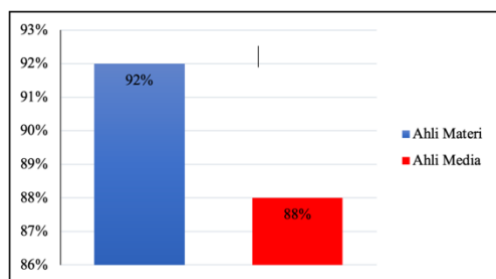


Figure 1. Expert Validation Results Graph

The validation of the subject matter expert obtained a score of 92% in the category of "very feasible". The validation of media experts obtained a score of 88% with the category "very feasible". The results of the group trial are as follows:

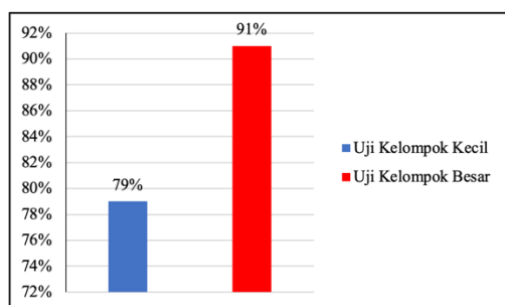


Figure 2. Trial Results Graph

Based on the results of the small group trial questionnaire and the large

group trial given after practice, the learning model is very feasible to use with an average percentage of 79% and 91%. Thus, the learning model developed makes the students of phase c of ELEMENTARY SCHOOL 106 Bengkulu City feel happy and interested if the activity process uses the learning model that has been developed. **DISCUSSION**

The development of a short-distance running learning model based on colorful balls run games in phase c students of ELEMENTARY SCHOOL 106 Bengkulu City is very helpful in the learning process where the latest learning model that has been developed makes students more interested and happy so that the latest learning model that has been developed has succeeded in overcoming students from boredom in the learning process.

In this study, the researcher used the ADDIE (analysis, development, implementation and evaluation) model. The researcher chose the ADDIE development model on the grounds that the ADDIE development model is used to describe a systematic approach to learning development. The development of learning models is also included in the learning process.

The first step taken by the researcher is to plan based on the initial analysis.

Planning starts from setting goals to be achieved through needs analysis and complete documents, then determining the steps that must be taken to achieve these goals. By planning, the researcher has an initial idea of what kind of product will be made. According to Putrianingsih et al., (2021).

Planning, which is decision-making related to the steps that need to be taken to achieve goals, must begin with the determination of the goals to be achieved. Therefore, the planning process begins with an in-depth needs analysis and is supported by the completeness of relevant documents.

The second step is to design a product, this stage is carried out to design a short distance learning model based on *colorful balls run games*. The design process is to determine the learning model and stages to be developed. In the design process, the researcher designed 5 learning models of *colorful balls run games* to be tested on phase c students of ELEMENTARY SCHOOL 106 Bengkulu City. Of the 5 learning models developed by the researcher, there are similarities and differences from previous research.

The difference is in the object and subject of the research. In addition, there are also differences in previous research

development models. Where previous research used the Borg and Gall model. Meanwhile, researchers are currently using the ADDIE development model. The similarities from previous research and current research are found in the games that were developed, namely *colorful balls run games*.

Next, the development stage, after the researcher has designed a learning model product. This learning model product will be validated by material experts and media experts to find out the shortcomings of the product that has been designed by the researcher.

Then, revisions or improvements are made based on input and suggestions from experts. This *colorful balls run games* learning model product is packaged in the form of a guidebook and videos that are uploaded on *the youtube* and *tiktok applications*.

The benefits of the learning model product that the researcher has made are that it can increase knowledge and skills in developing learning models to increase students' interest in *colorful balls run games*. The purpose of the validation is to determine the feasibility level of the learning model that has been created so that it can be used in the learning process.

In the first subject expert validation obtained a score of 46 and the maximum score on 10 statements had a score of 50, so the percentage was 92%, while in the second subject expert validation, the researcher obtained a score of 46 and the maximum score on the question had a score of 50, so the percentage was 92%. Because the validation of the subject matter expert has two people, the researcher is looking for an average of both percentages, which is obtained a final score of 92% with the category "Very Feasible".

In the first stage of media expert validation, there is a disadvantage, namely adding *subtitles* from the beginning to the end of the video to make it clearer and easier to understand. Then, the researcher makes revisions based on the suggestions and inputs provided by the validator.

After being revised, the researcher had 10 questions, the researcher obtained a total score of 44 and the maximum score on 10 statements had a score of 50, so the percentage was 88% with the category "Very decent". Therefore, it was concluded that the development of a short-distance running learning model based on *colorful balls run games* is very feasible to be used for the learning process.

The next step is for the researcher to conduct a small group trial. This step was taken to find out the response of students to the short distance learning model based on *colorful balls run games*. The number of students in the small group trial was 10 people. Based on the results of the questionnaire given after practice, it was found that the students' response to this learning model obtained an average score of 79% with the category "Feasible".

The next trial was a large group test of 40 people. In this stage, it is the same as a small group test, where students practice the learning model and then fill out a questionnaire that aims to find out the response to the short-distance running learning model based on *colorful balls run games*.

The average percentage obtained in the large group test was 91% with the category "Very Feasible". At this stage, students look very enthusiastic and happy in practicing the learning model based on *colorful balls run games*.

The output of this research is a video development of a short-distance learning model based on *colorful balls run games* which can be accessed through the following barcode:



Figure 3. Barcode Learning Video

CONCLUSION

Based on the results of the research and discussion, it can be concluded that the development product in the form of a short-distance running learning model based on *colorful balls run games* in phase c students of elementary school 106 Bengkulu City is feasible and can be used as a learning model in elementary school, this is because students look more excited when learning to run short distances using games, Students are more able to express their happiness while learning, they are also very enthusiastic when practicing every learning development model given, so that this latest learning model that has been developed has succeeded in overcoming phase C students from boredom in the learning process.

The product of developing a short-distance running learning model based on *colorful balls run games* is packaged in the form of a guidebook and videos that are uploaded to the youtube and tiktok applications so that PJOK teachers can be used anytime and anywhere.

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