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Grade 3 students at Kebayoran Lama Elementary School 19: Game-Based Model for Throwing and Catching Movements

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Abstract

Objectives. The objective of the research is to develop a game-based model for fundamental manipulative movements like throwing and catching. The model can be used in physical education classes in elementary schools to assist teachers in teaching these fundamental movements. The created model is expected to be an effective tool in enhancing the learning process of basic manipulative movements in students.

Materials and methods. The ADDIE model was utilized in this research which involved five stages - analysis, design, development, implementation, and evaluation. The research resulted in the development of a validated model for basic manipulative throwing and catching movements. The model underwent revision by basic movement expert lecturers, game experts, and elementary school physical education teachers, resulting in a total of 15 lessons. The data collection process consisted of documentation and observation, while data analysis was carried out descriptively.

Results. At SD Negeri 19 Kebayoran Lama, a game-based model has been developed to teach third-grade students the fundamental skills of throwing and catching. The purpose of this research is to enhance the basic manipulative abilities of elementary school students through immersive and interactive gameplay. By utilizing a game-based approach, students are motivated to learn and practice the essential skills of throwing and catching. The game-based model provides a fun and engaging way to teach the students, which can lead to improved learning outcomes. This research seeks to contribute to the development of effective teaching methods that can enhance the learning experience of young students while promoting their physical development.

Conclusion. The implementation of basic movement models in physical education is a valuable tool for teachers, particularly in the instruction of basic manipulative movements such as throwing and catching. This study examines a game-based manipulative throwing and catching basic movement model for Grade 3 students at SD Negeri 19 Kebayoran. The aim of this model is to provide students with a comprehensive understanding of manipulative movements, while simultaneously engaging them in a fun and interactive manner. By employing this approach, educators can facilitate the acquisition of essential motor skills, improve hand-eye coordination, and promote physical fitness among students.

Keywords: Game-Based Model, Throwing, Catching

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Introduction

The physical education curriculum in schools covers various sports activities that involve different types of motion abilities (Dudley et al., 2011). These abilities are summarized in three physical education curricula, one of which is manipulative abilities that involve throwing, catching, and kicking movements. These manipulative abilities are crucial for a child's development, as they sustain the need for movement in children (Ardini et al., 2019). As children grow, their manipulative abilities develop and improve with the aid of exercise and movement studies (Sutapa et al., 2021). However, enhancing a child's motion abilities is not always given priority in education. Teachers and parents tend to emphasize academic skills such as reading, writing, and arithmetic over physical skills. Moreover, modern children spend a lot of time engaging in non-physical activities such as gaming and television watching (Kohl III & Cook, 2013). To develop a child's manipulative abilities, modified games can be implemented to make the standard game techniques simple and in accordance with the child's needs to stimulate their manipulative abilities (Bulu Baan et al., 2023).

Manipulative actions are simple but have a significant impact on a child's motor development, especially their gross motor skills (Dewi & Verawati, 2021). Therefore, it is crucial to provide attention and sustainable practice to achieve optimal results. Therefore, the study of the development of a special game for motion-based manipulative learning is essential (Dwivedi et al., 2023). The results of observations conducted by researchers at SDN Kebayoran Lama 19 have revealed that motion-based manipulative learning is not adequately used in the learning process. This is due to the lack of variation in game activities, which causes children to lose interest in movement-based activities. Therefore, the development of motion-based manipulative games can be very helpful for teachers in guiding children to engage in motion activities such as throwing and catching, which are frequently performed by children (Satria & Wijaya, 2019).

However, the movement-based activities taught in the current education system lack innovation and interest, leading to children feeling bored and uninterested in such activities. Therefore, there is a need to develop motion-based games that are appropriate for manipulative development and align with the age and abilities of young children. The development of motion-based models, such as throwing and catching games, can become a valuable source of support for children's development. The researcher seeks to delve deeper into this matter through a research study titled "Grade 3 Students at Kebayoran Lama Elementary School 19: Game-Based Model for Throwing and Catching Movements" Through this research, the

researcher aims to investigate the development of motion-based manipulative games and their impact on the learning process of young children.

Materials and Methods

Study participants.

Once the validator has verified the feasibility of the implementation results or application, the model can be applied in the field, specifically during the implementation stage with a group of 10 students. The results analysis of field trials conducted by experts, as explained by researchers, has revealed that the motion model products based on manipulative throwing and catching-based games developed in the study are effective and fulfilling conditions for the process of movement-based manipulative throwing and catching.

Study organization

The Research and Development (R&D) method was utilized in this study, specifically the ADDIE model for study development (Branch, 2009). The ADDIE model consists of a series of appropriate steps, including analysis of observations obtained at SDN Kebayoran Lama 19. The learning motion base manipulative was found to be underutilized in the learning process due to the lack of variation in activities, leading to a lack of interest among children in performing movement activities. Therefore, teachers can utilize the development of motion manipulative games as a useful guide for children's activities.

Statistical analysis

During the development stage, the framework is still in the conceptual phase. Once the framework is implemented, it becomes a ready product. At the development stage, we have 15 motion models that serve as the base for manipulative throwing and catching based games with goals, media, and tools that focus on learning and its implementation. We conduct expert reviews and trials in stages of implementation, followed by an evaluation stage where we analyze qualitative data in the form of input, suggestions, and criticism from experts and field tests. Afterward, we gradually revise the existing model for further development.

Results

The implemented motion model-based game involves manipulative throwing and catching activities. It includes 15 different motion models such as Underarm Rolling, Underarm Throwing, Overarm Throwing, and Two Handed Throwing, along with Catching activities. The game was attended by 10 students, and the data collected by the researchers revealed the need for revising certain learning models. This revision was carried out to maximize the developmental benefits of motion models-based manipulative throwing and catching games. Although the study was conducted to its full potential, there were still some limitations that

were acknowledged by the researchers. These limitations could be addressed in the future to facilitate the learning process within physical education, specifically in motion-based manipulative throwing and catching activities. A table describing the constraints encountered during the implementation of the game is presented below.

Table 1. Motion model base manipulative

No	Model Name	Implementation	Suggestion
1	Bowling Between	Students understand and can do it well	Create new challenges such as targets that are further away
2	Bowling Targets	Students understand and can do it well	Replace the target with media/tools that can fall, such as bowling pins made of wood/plastic
3	Corner Bowling	Students understand but find it difficult to hit the target because it is far away and diagonally located	Replace the target with media/tools that can fall, such as bowling pins made of wood/plastic
4	Throw in Basket	Students understand and can do it well	Create new challenges such as targets that are further away
5	Tic Tac Throw	Students understand and can do it well	Replace the cone with a medium/tool that can be thrown well
6	Diagonal Throwing	Students understand but find it difficult to hit the target because it is far away and diagonally located	Replacing targets with larger media/tools
7	Hula Hoop Target	Students understand and can do it well	Create new challenges such as longer distances
8	Hit By The Ball	Students understand and can do it well	Create new challenges such as more students and expanded arenas
9	Throw And Back	Students understand but some students have difficulty understanding	The distance is adjusted
10	Crab Throwing	Students understand and can do it well	Create new challenges such as longer distances
11	Throw in a Hula Hoop	Students understand and can do it well	Create new challenges such as longer distances

12	Long Throwing	Students understand but some students have difficulty understanding	The distance is adjusted
13	Catch This Ball	Students understand but some students have difficulty understanding	The distance is adjusted
14	Squat And Move	Students understand and can do it well	Create new challenges such as more students and expanded arenas
15	Ball In A Cone	Students understand and can do it well	Create new challenges such as longer distances

Discussion

The study conducted on motion-based manipulative throwing and catching games has yielded significant results. The research findings suggest that this study can serve as a material reference for educators to apply in the learning process. It can also motivate physical education teachers to develop self-strength in students, making them more active and improving their motion-based learning abilities. The study can be shared with schools to help students gain an inner motivation to learn and increase their interest in physical education. For the next model, it is expected that there will be more studies conducted with a greater variety of data to add more interest and motivation for study participants and educators.

Conclusions

After conducting expert tests and multiple stages of validation, the research team has arrived at an intriguing discovery. Their findings suggest that incorporating manipulative throwing and catching-based games that utilize a motion model can serve as an effective teaching tool for third-grade students at SDN Kebayoran Lama 19. The study involved the use of 15 different models and provides valuable insights into innovative ways of enhancing student learning.

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Conflict of interest

Researchers declare there is no conflict of interest

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