Learning Model for Physical Education Based on Local Culture in South Sulawesi

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ABSTRACT
Physical education is one of the subjects in elementary schools that aims to develop students' physical and emotional abilities. The physical education learning model developed to increase students' interest in practicing while learning. Many local cultures in South Sulawesi can be integrated into physical education learning. Researchers develop local game Hadang or foreigners in learning physical education. This study reviews physical education learning trials based on local culture involving 36 elementary school students. The researcher uses four physical growth variables that measure the learning model's success: agility, speed, reflexes, and cohesiveness. The study results indicate that as local culture, the game can be used as a model of physical education learning and increase students' physical growth.

Keywords: Local culture, physical growth, Hadang game

1. INTRODUCTION

One of Indonesia's National Education goals is to develop physical education to reach a healthy and skilled generation. Physical education develops many learning models to obtain physical health and fitness, abilities and skills, and students [1] [2]. Physical education as a learning process that utilizes physical, mental, and emotional activities in students. Physical education is one of the elementary school subjects to the high school level [3].

Student motivation in learning physical education is characterized by student activity and participation. One appropriate way to activate students is the game method. This method has been proven to increase student participation in physical education learning. Games provide equal opportunities for students to participate and be involved throughout learning activities. Furthermore, students' game techniques must be varied to develop their creativity in learning [4].

utilized in physical education is Hadang and Asing game. Local movement culture is a symbol that has a variety of meanings and functions of the community. The culture of this movement can develop student creativity, skill, courtesy, and agility. Local movement culture is a symbol that has various meanings and functions in it [5]. Local movement culture is an arena for creativity, sports, and a means of practicing for community life, skills, well mannered, and dexterity. Local movement culture is one of the nation's cultural assets with unique characteristics culture of a nation. Character education can be formed through traditional games from an early. There are many ways to teach positive values, but the game is the way that is considered the most preferred by students. Students will more easily describe their feelings when they play freely.

Hadang game likes to be played by students. This game can also train students' various skills, especially for students' physical growth and development. For example, agility, speed, and reflexes in students, of course, cohesiveness, are not immune to this game.

The term of Hadang game made by two teams who play on a piece of land that has been lined up into a rectangular box. One team is tasked with blocking an opponent who will penetrate his defense. Hadang games are composed of two teams, namely guard teams and attack teams. Each guard team player has to guard his area in layers backward while making hand movements blocking the attacking team, so that the attacking team cannot penetrate its defense. One player in charge in the middle of the line that moves perpendicular to the other guard, he has the right to move from front to back.
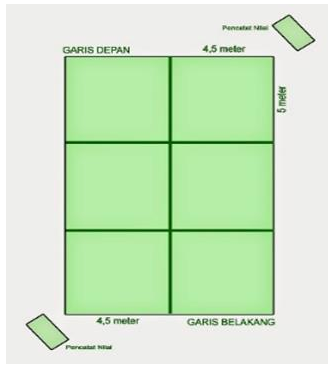
Figure 1 Standard field image

The Hadang game involves two teams and five players for each team. The guard's players are required to guard one opposing player. Who is in charge of the game area's centerline controls all opponents' movements (surrounding the opponent). The game is declared finished or changed guard when the guarding player touches the opposing player's limb or vice versa. Each game is limited by time and game round; the match's time depends on the judge/referee leader/player approval. The winning team is the most at the specified time of the game. Furthermore, the arena's size can use a volleyball field, which is divided into six rooms, or can be of a size that is determined by itself.

Based on the Hadang game criteria, researchers assess that this game can be utilized as a physical learning model. This consideration is also based on elementary school students' ability to understand the rules of the game. Physical education learning model in elementary schools to find student's physical growth as a result of learning.

2. RESEARCH METHOD

This study uses an experimental method involving 32 Elementary School students in grade VI in Makassar City, Indonesia. Students are divided into four groups and given physical training with a game of hands. Eleven training models were given to each group to test agility, speed, reflex, and cohesiveness. The data analysis method uses descriptive analysis.

3. RESULT AND ANALYSIS

3.1. *Hadang Games Description*

Researchers developed eleven learning models with local culture material. The description of the model is presented in table 1.

Table 1. Physical Education Development Model Based on South Sulawesi Local Culture Movement

No	Model	Movement	Information
1.	1	The size of the playing block is 4 m x 4 m	The pitch is made smaller than the original size. The model introduces the Hadang game in advance
2.	2	The size of the playing block is 5m x 5m (original size)	
3.	3	The attacking team brings the ball thrown to a teammate	Players have the freedom to carry the ball and throwing techniques (top throw, chest throw, side throw)
4.	4	The attacking team brings the ball thrown to a teammate	Players have the freedom to carry the ball for 30 seconds in one catch and throwing techniques. (top throw, chest throw, side throw)
5	5	The attacking team brings the ball thrown to a teammate.	Players have the freedom to carry the ball for 10 seconds in one catch with a chest throw technique
6.	6	The attacking team can dribble and pass the ball to a teammate	Players allowed to dribble two hands. The ball may be passed with a free throw.
7.	7	The attacking team can dribble and pass the ball to a teammate	Players only allowed to dribble in one hand. The ball may be passed with a free throw.
8.	8	The attacking team can dribble and pass the ball to a teammate	Players allowed to dribble the ball with only one hand. If the ball has been held, it means the ball must be passed; the ball can be passed with a free throw.
9.	9	The attacking team can dribble and pass the ball to a teammate	Players allowed to dribble the ball in 10 seconds with only one hand. If the ball has been held, it means the ball must be passed; the ball can be passed with a free throw.
10.	10	The attacking team can kick the ball and pass the ball by kicking a teammate	Players have the freedom to hold the ball and freely passed (inside, outside, back, heel)
11.	11	The attacking team can kick the ball and pass the ball by kicking a teammate	Players allowed to hold the ball in 10 seconds and freely passed (inside, outside, back, heel)

3.2. Test the Physical Growth of Students after the Application of Gameplay

This study examines four variables, namely agility, speed, reflexes, and cohesiveness. The first three variables are individual performance, while cohesiveness is collective.

Students' agility or ability to change direction quickly and precisely at the time of moving without losing balance. Agility is strongly influenced by the flexibility of the body and balance factor. The agility assessment results on the eleven model tests involving 32 students in four games are presented in Figure 2.
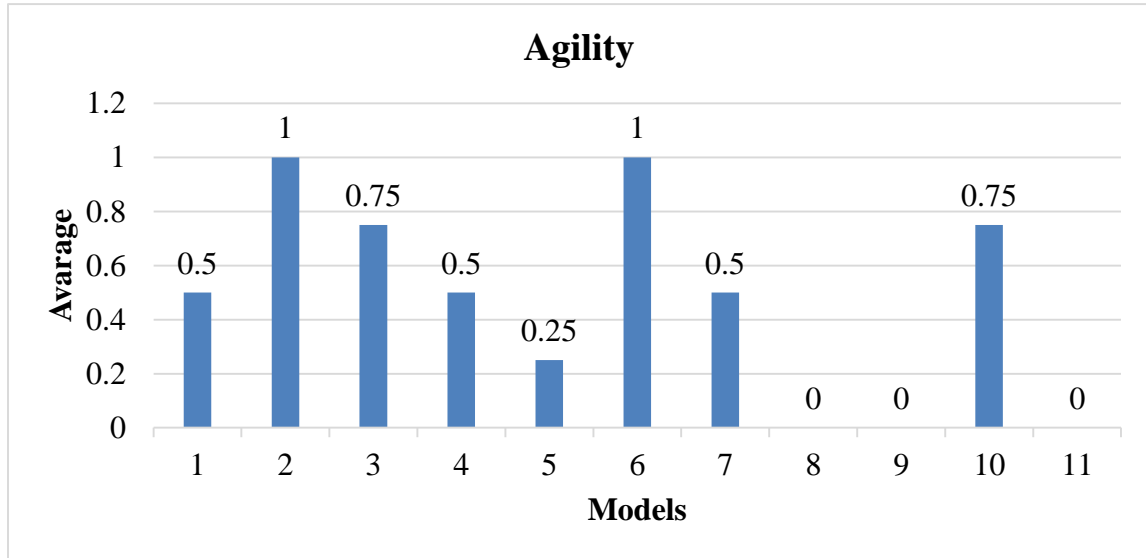

Figure 2 Student agility test on learning models

The agility test results showed that 8, 9, and 11 did not contribute to showing the agility of students. While model 2 and model 6 give optimal results on student agility.

Furthermore, the speed of movement measured by the movement of the body receives stimuli suddenly or quickly. The speed assessment results on the eleven model tests involving 32 students in four games are presented in Figure 3.
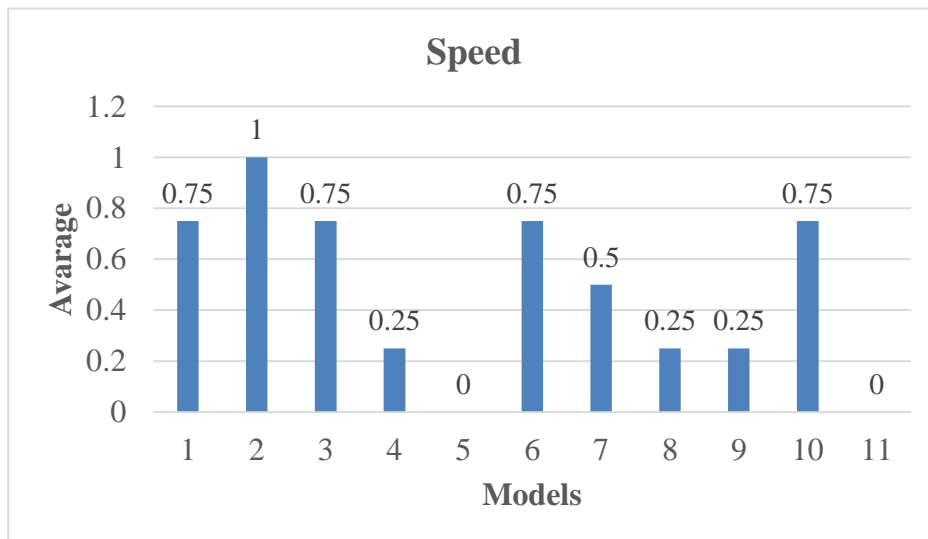

Figure 3 Speed student test on learning models

Speed test results show that model 2 effectively produces student performance in practice—the speed of student movements achieved in exercises with a field size of 5 m x 5 m. Learning models 5 and 11 make it difficult for students to run and respond to the opponent's attacks.

This study also tests student reflexes during learning, namely students' ability to display correct movements quickly due to external responses student reflexes displayed in various learning models presented in Figure 4.
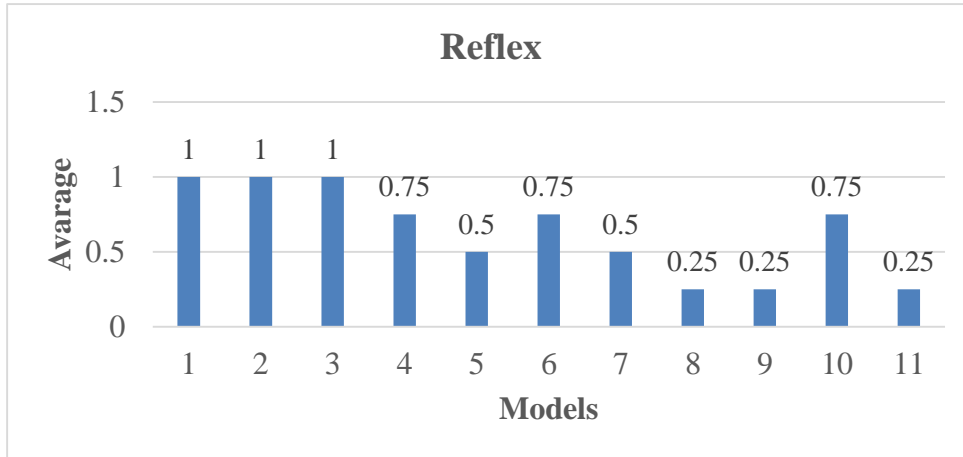

Figure 4 Student reflex test on learning models

The test model of the student's appearance in giving the right and precise movements showed good results. All models make it easy for students to show correct movements in a game of play. Games in sports practice also stimulate communication between individuals. Cohesiveness describes the closeness of relationships between students in a team or group. The team members' cohesiveness is dynamic in the target group that is understood by all team members. The results of cohesiveness tests on Hadang games or physical fitness learning show that ten models are feasible to increase cohesiveness between teams, while the eleven models are not effective in providing cohesive stimulation to students.
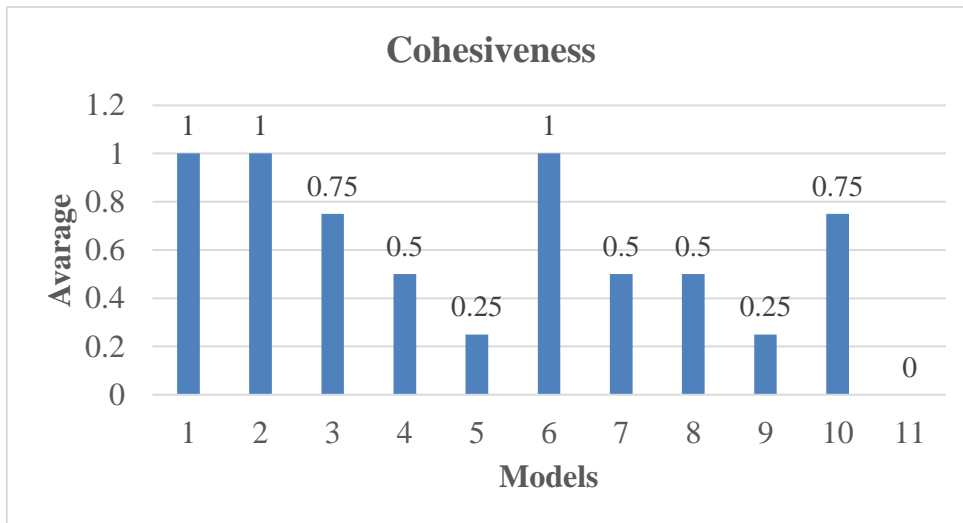

Figure 5 Student Cohesiveness Test on learning models

In general, Hadang games are suitable for use in physical fitness learning. Game rules that are feasible to apply are proven

Table 2. Recapitulation of the Eligibility of Hadang Game Models

Indicator	Hadang Game Models										
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
Agility	✓	✓	✓	✓	✓	✓	✓			✓	
Speed	✓	✓	✓		✓	✓	✓	✓	✓	✓	
Refleks	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cohesiveness	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

to produce students' abilities for all four indicators. The recapitulation analysis of the Hadang model's feasibility forms the basis for evaluating the feasibility of the model shown in Table 2.

The analysis shows that model 5, model 8, model 9, and model 11 of the Hadang game are not suitable for physical learning. The other seven models' application has proven the development of the Hadang game model can improve the fitness and activeness of children (students) aged between 10-12 years. Also, variations in the training model make children interested in learning and not dull for students. The movements required in this game are also easily implemented for children. The physical fitness learning model can develop student discipline and social interaction between students. This has an impact on a student's interest in participating in learning well.

An effective learning model is a model that suits a student's abilities and school facilities. The teacher must understand the condition of the primary students related to physical conditions and the ability to move. The game is an attraction in sports learning because it is dynamic, exciting, and activates all students [6]. However, the development of models requires teacher innovation and creativity.

4. CONCLUSION

Based on the learning model's test results, it is concluded that the Hadang game or local culture can be used as a physical education learning model and increase the physical growth of students.

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