Preservation of Traditional Games
through the SPADE Learning Model in Primary Schools

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**Abstract.** This research is motivated by the importance of applying SPADE learning model in preserving Indonesia's traditional game culture within the scope of elementary schools. The development of the times, making traditional games almost extinct. In addition, there is no learning model with stages relating to singing , playing , analysis, discussion and evaluation. This means SPADE learning model is very suitable to be applied in terms of preserving traditional game culture. In addition, SPADE learning model is very fun because in its stages there are singing and playing because children are essentially playful. So this model is very instrumental in the learning process to help students in understanding geometry material. The purpose of this study to describe the importance of SPADE learning model to be applied in elementary schools in preserving Indonesia's traditional game culture. The use of this research method is a descriptive method with a documentary analysis study approach. The conclusion of this study is that SPADE learning model is feasible and important to be applied in elementary schools because learning is fun and easy for mathematics, especially geometry. In addition, as a form of preservation of Indonesia's traditional game culture.

1. Introduction
Traditional games are considered children's games before the age of modern technology, in the 90s and before. The times are changing rapidly and reducing the popularity of traditional games. Nowadays, children prefer to play devices. This is in line with statement that children rarely use traditional games as an attractive option for them due to the impact of offering more sophisticated games in big cities [1]. In fact, traditional games are very useful for developing cognitive and motor skills. Therefore, traditional games need to be preserved.

The preservation of traditional games has been listed in the Regulation concerning the guidelines for the preservation of tradition chapter III article 4 regarding the object of tradition preservation include: a. traditional ceremonies, namely sacred events related to forces beyond human ability (magical) with natural events and life cycles; b. folk tales, namely stories that were disseminated and passed down orally and classified into three major groups, namely myths, legends, and fairy tales; c. folk games, namely a recreational activity that has special rules, which are a reflection of cultural character and function as a guardian of social relations; d. traditional expressions, namely figurative sentences, symbols whose meaning is understood by the wearer orally which contains the values ​​of life and the views of society; e. traditional medicine, namely procedures for healing diseases that are traditionally carried out and passed down from generation to generation, using traditional tools and utilizing materials obtained from the natural environment and the use of spells; f. traditional food and drink, namely the type of food and drink made from natural ingredients and the manufacturing process still uses simple tools and is a cultural work of certain local communities; g. traditional architecture, namely a building whose form, structure, function, various biases, and ways of making it are passed from one generation to the next and can be used as a place to carry out life activities; h. traditional clothing, namely clothing that functions to protect the body from the natural environment, and has regional nuances that become a characteristic or identity for the supporting community [2]. One of the efforts to preserve traditional games is inserting them into the learning process through the implementation of the SPADE learning model.

The SPADE learning model is seen as a traditional game-based learning model by implementing learning in accordance with traditional game-based building materials in elementary schools [3]. The SPADE learning model pattern begins with Singing (singing songs about geometry material), Playing (playing the traditional game of pecle, gobak sodor and damdaman), analysis of flat shapes, discussion of analysis results and evaluation of analysis results.

The SPADE Learning Model gives educators the freedom to choose traditional games according to the geometry material being studied. Therefore, the SPADE learning model is a solution to preserving traditional games while inviting children to play while learning. The purpose of this study describes the importance of the SPADE learning model to be applied in elementary schools in preserving Indonesia's traditional game culture.

1. Methods

This research uses descriptive method so it emphasizes data collection and identification. The components in this study are to describe, analyze and interpret the findings in clear and precise terms [4].

Fig. 1 Research Approach

Figure 2 shows the approach used is a documentary analysis study to reveal the information that is in a particular field of study [5]. This means that document analysis is carried out with the subject of citation analysis and analysis of bibliographic subjects in scientific papers. The object used for research is a bibliography or reference in the scientific paper.

1. Results

Traditional games can be considered endangered by modern games. It is in line with Nurhafizah & Kosnin's statement that traditional games are increasingly being rarely chosen as games that are attractive to children [6]. This is considered as a result of the current offer of sophisticated games, especially in big cities. Traditional games are important to be preserved because they include the characteristics or culture of a region or country and the traditional games are the culmination of all cultural outcomes [7].

Traditional games are games that can train children's motorik and cognitive abilities. Traditional games will train every child's potential which is reflected in every social adaptation behaviour [8]. This is reflected in the attitude to always preserve and also love the culture of the Indonesian nation's beloved archipelago.

In addition, researchers have not found a more concrete preservation of traditional games in government policies in the field. So there needs to be an alternative container so that traditional games are maintained. Therefore, the SPADE learning model is an alternative for preserving traditional games.

The SPADE learning model is a new learning model in education. This model was created by Dr. Epon Nur'aeni L, M. Pd and friends. He is a lecturer at the Indonesian University of Education. This learning model was initiated in 2019. The research location is in Kampung Naga, Neglasari Village, Salawu District, Tasikmalaya Regency.

The stages of the learning process are listed in the name of the model, namely Singing, Playing, Analysis, Discussion and Evaluation. At the singing stage, the songs used are adapted to the material, for example by adjusting the lyrics of children's songs and modifying them by including the important points of the material to be studied. An example of modification of the material is the space-building nets of the song "Kring-kring Ada Sepeda" by Pak Kasur (Soerjono) and Bu Kasur (Sandiah).

**Ring-ring**

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| *Ring ring jaring balok*Beam net ring ring*Bentuknya beda-beda*They come in different shapes*Setiap sisi saling*Every side of each other*Saling berpasang pasang*Pair each other | *Ring-ring jaring balok*Beam net rings*Ada tiga pasang sisi*There are three pairs of sides*Setiap pasang sisi*Each pair of sides*Sama dan sebangun*Congruent |

At the playing stage, the song is adapted to the learning material. Moreover, it is associated with traditional games. For example, the nets build space according to the pecle game seen in terms of its shape.

In the analysis stage, namely by observing the playing arena, provided with student activity sheets (LKPD) to find out what the observation activities were. At the discussion stage, namely discussing questions at the LKPD. In the evaluation stage, namely by correcting when there are mistakes, you can ask and answer questions.

* 1. Relation between traditional games and mathematics (SPADE Model)

Many traditional games are associated with mathematical material, including: congklak, cranks, gobak sodor, bekel and boy-boyan. However, not all of the SPADE learning models can be linked because SPADE is identical to geometry. That is, only traditional games in the form of an arena that can be applied in the SPADE learning model such as cranks and gobak sodor. The following is an example of a description of a traditional game with the SPADE learning model, such as: *Engklek.*

In traditional Sundanese, this game is more often called pecle, but society in general call this game as engklek. The sketch is depicted with a square or rectangular outline, and a semicircle. In the game of *engklek*, shards of tiles or ceramic shards (*Gacok)* are needed. Gacok is usually a circle or a square. This shows that this game is closely related to geometric properties. The game arena is a geometric shape with folding symmetry. So that it adds to the support that they are closely related to geometry. Even the use of the *Engklek* arena is similar to the shape of beam nets. This shows that there is a lot of mathematical potential to be developed in this game.



Fig. 2 the use of the pecle game

Figure 2 shows the use of the pecle game. This game can be done in groups with between two and ten players. The rules and procedures for playing *Engklek* include:

* Create a traditional pecle playing arena with lines using chalk or rapia and nails as pegs on the ground.
* Prepare broken tiles or ceramic fragments (gacuk).
* Players must perform *gambreng* or *hompimpa* and *suit* to determine the order of play first.
* Players must jump using one leg (*Engklek*) in each plot.
* The player throws *gacuk* into one of the squares, if he leaves the arena then the player is considered void and is replaced by the next player.
* The tile in the *gacuk* cannot be stepped on so it must jump to the next tile. if a player steps on the line or rope, then the player is considered knocked out and replaced by the next player.
* When the player reaches the top of the arena mountain then the player must take the *gacuk*, if the player touches the line then the player is deemed knocked out and replaced with the next player.
* If the player manages to take the *gacuk*, then the *gacuk* is thrown out (the starting area of ​​the arena) by turning his back and closing his eyes.
* Then the player *Engklek* according to the box and ends with rests on the *gacuk* that was thrown earlier.
* If successful, the player continues to the stage of looking for rice fields by way of *gacuk* the hips with the palms of the hands five times without falling.
* When successfully finding a field the player plays again from the beginning.
* The player with the most fields is the winner

To implement the SPADE learning model, some preparation is needed as well as learning in general, such as learning materials, learning process plans (RPP), student activity sheets (LKPD) and learning media as needed. The difference lies in the content of the core activities and the use of the media.

1. Discussion

The SPADE learning model is very helpful during the learning process to reduce the burden, especially for students because SPADE combines learning and playing situations. The SPADE learning model helps students understand mathematics subjects, especially geometry material. In addition, the SPADE learning model can be used as an effort to preserve traditional game culture so that it does not become extinct. Thus, the SPADE learning model is feasible to be applied to help students understand mathematics, especially geometry material as an effort to preserve traditional game culture in elementary schools.

**References**

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