

# Developing Children's Linguistics Intelligence using Sodokoro Traditional Game

Hilaluddin Hanafi<sup>1</sup>, Aris Badara<sup>2</sup>, Wa Kuasa Baka<sup>3</sup>, Sartiah Yusran<sup>4</sup>, Alberth<sup>5</sup>

<sup>1,2</sup>Department of Indonesian Language and Literature Education, Faculty of Education, Halu Oleo University, Southeast Sulawesi

<sup>3</sup>Department of Anthropology, Faculty of Cultural, Halu Oleo University, Southeast Sulawesi of Indonesia,

<sup>4,5</sup>Department of English Language and Literature Education, Faculty of Education, Halu Oleo University, Southeast Sulawesi

**Abstract:** *The utilization of traditional games in teaching has been done in some of both developed and developing countries. In Indonesia, some kindergartens have utilized some local traditional games to develop children intelligence. One of these is Sodokoro game. To have a strong theoretical base and to comply with educational philosophy on this game, this study used Research and Development method. The model was combined with action research to justify model. In addition, it was conducted a visiting to some Kindergartens that utilize the Sodokoro game as teaching media. This study concluded that it is very important to develop linguistic intelligence of children because from this intelligence, it can be derived other intelligences. The result imply that it needs further and in-depth studies that mainly related to the physique, psychic and sosiological aspects of children in utilizing the game. Hence, the study recommend a curriculum development, both from government and nongovernment in order the study decided to be a model of teaching of the early childhood.*

**Keywords:** Children, Sodokoro, Linguistics Intelligence, Learning

## 1. Introduction

This study uses one of Indonesian traditional games to develop the linguistic intelligence of children. It based on the some previous studies carried out in some countries, for instance the study conducted by Snel (2009) He reported that through traditional game, children can result in important things, e.g. cultural conservation and cultural identity improvement. From the finding of the study, the children wished to be agent of human in conserving the world heritage.

In addition, in some developed countries, like Australia, as raised by Edwards, and Troy Meston, (2009) that the traditional game is implemented in their education curriculum, especially in Kindergarten. Even they involved the elder in its implementation.

The traditional game is flexible and practical so that it is very effective used as a media in learning and teaching process. In Indonesia, the game has been applied by teachers at schools albeit is still unsystematic according to the educational theories. According to some experts, e.g. Moursund (2007: 28) implied that game in education plays important role and legitimated in the curriculum, moreover many colleges and universities now offer undergraduate and graduate degree programs in games.

When it comes to how to choose a traditional game to be utilized as a learning media, the following criteria by Hidayat and Tatang (1980) can be used: (a) the game is boredom-free, (b) the game is challenging, in that it poses problem that can be solved in a fun way, (c) the game encourages cooperation as well as fair competition, (d) the game assists students with slow and poor ability, (e) the game promotes teacher's creativity.

The traditional game *sodokoro* meets these criteria for the media in this research. The game will be further analyzed to identify the parts that can best be used as the media to develop children's linguistic intelligence. This type of intelligence is shown through the children's ability to use language and words in various forms, both orally and in written, to express their feelings and ideas.

*Sodokoro* means "shoot" is a traditional game from Southeast Sulawesi. It is a game using an artificial gun made from bamboo. The procedure to make and to play had been stated in (Anwar *et al*, 2013) as following: take and then cut a small bamboo in 30 cm length, then cut other smaller bamboo to be a skewer for the first cut bamboo. The game is played by inserting a small guava into the hole of the bamboo then pierced with the smaller bamboo repeatedly until produce a like-gun shooting sound. The game can be either individually played or in group. Firstly, put an object to be shot, and then start to shoot the object. One, who can shoot down the object, is the winner.

It has so far been shown that traditional game can be used as a media in developing various types of children's intelligence. This becomes the focus of this study, that is, to develop children's linguistics intelligence by utilizing the traditional game of *sodokoro*.

## 2. Method

This study used a model of *research and development* R & D (Borg & Gall, cited in Semiawan, 2002), combined with a two-cycle *action research* model. The R & D model was used in the evaluation phase to justify the learning model being developed. A series of visit was conducted to some regions, where the majority of Butonese, Munanese, Buginese, and Tolakinese/Mekongga people live. In these visits, focus group discussions were held to attempt to make

link to relevant theories, to design a model of learning, to run a mini workshop for teachers of Early Childhood Education (PAUD), and to research the model of learning.

The subject of this research is three institutions of Early Childhood Education (PAUD) located in Kendari. One of these institutions has status as “*pembina*” (founder), while the others are managed by local community.

### 3. Results

With a view to develop children’s linguistic intelligence, this study focused on improving the children’s ability in the following aspects: (a) expressing words used in *sodokoro* game through intelligible body language, (b) setting out convincing arguments through events that transpire during the game of *sodokoro*, (c) retelling events experienced during the game, (d) doing things as instructed by teachers, (e) asking and answering *what, why, where, how many, how, and who* questions orally, (f) naming objects and things related to the game, (g) identifying game-specific words/terms used in *sodokoro*.

It was, however, observed in the beginning of the study that not only could the *sodokoro* game develop the children’s ability to distinguish and count the sound generated by the game, but also it can enhance their fine motor skills, through the following actions: (a) correctly holding the bamboo rifle, (b) moving hand to push the *sodokoro* stick, (c) packing up and neatly placing the instrument after use, (d) tearing paper for use as the bullet of *sodokoro*, (e) dunking paper for use as the bullet of *sodokoro*, (f) shaping the soaked paper into rounded bullet of *sodokoro*, (g) placing the soaked paper on the entrance hole of *sodokoro*, (h) hitting the paper bullet into *sodokoro*, (i) inserting rifle stick into *sodokoro*.

This research, therefore, did not only develop children’s linguistics intelligence, but also enhance their fine motor skills, which is one positive effect that the study revealed.

The steps of action research in this study are based on the steps proposed by Elliott (1981), Kemmis and McTaggart (1982), Ebbutt, (1985), McKernan (1988). Those steps were summarized by Waters (2006) as in this following application:

**Stage 1**, some problems with early childhood learning were identified and analyzed.

**Stage 2**, with the assistance of some teachers of early childhood education, actions and cycles were planned. These include (i) designing a Plan of Daily Actions; (ii) developing instrument of evaluation, in accordance with the learning objectives and the competence of the students; (iii) designing test instrument; (iv) designing students’ worksheets, (v) writing interview questions; (vi) designing observation format; and (vii) developing a questionnaire.

**Stage 3**, after completing the necessary preparation in stage 2, the plan was put into action by the teachers and the research team, according to the pre-planned steps and cycles, which covered: (a) giving treatment according to the Plan of Daily Actions, (b) making observation,

(c) recording and taking notes of the observation, (d) evaluating the learning outcome, (e) evaluating the students’ performance, and (f) conducting interview

**Stage 4**, actions were taken according to what had been planned in Stage 2. Following this, the teachers and the researcher reflected on the actions by taking into account information generated from observation, interview, test, questionnaire, and other sources.

**Stage 5**, based on the results of the reflection, the researcher drawn some conclusions on the process and outcomes of the learning that have been achieved.

**Stage 6**, on the basis of the reflection and conclusion, decision about the next actions was made.

### 4. Discussion

#### 4.1 Preparing for the Action Research

Before going into the first cycle, the following preparations were made:

- Designing a Plan for Daily Actions and the learning media. The media was called *sodokoro* in Southeast Sulawesi languages, a traditional game of shooter using a ‘rifle’ stick made of bamboo tree. Other supporting materials were also prepared.
- Designing an observation sheet for use by the researchers to observe the teacher’s and students’ activities during the teaching and learning process.
- Preparing and designing assessment instruments along with some indicators that have been set to guide the actions. The indicators comply with the standard of assessment in early childhood education (Regulation of Ministry of National Education No. 58 of the year 2009 concerning Standard of Early Childhood Education).

#### 4.2 Implementing the Action Research

The actions in each cycle were taken in accordance with the plans previously pre-agreed by the teacher, the school management, and the researchers. In this phase, the teacher followed the lesson scenarios as prescribed in the Plan for Daily Actions. During the teaching and learning process, the researchers were assisted by some teachers of early childhood education to observe the class. Below is the observation procedure.

#### 4.3 Observation

The researchers, assisted by some experienced teachers of early childhood education, observed both the teacher’s and students’ activities during the lesson. The observation employed a note taking method.

The observation was generally done to look at the teacher’s competence, student’s attention and participation, and, the utilization of *sodokoro* traditional game to develop the students’ linguistic competence. The details of aspects under observation and its focus are: (a) preparing learning steps, (b) explaining the lesson objectives, (c) introducing the instrument of *sodokoro*, (d) demonstrating how to play *sodokoro*, (e) explaining that the ‘war game’ by using *sodokoro* must only be played in the classroom and the

students must stay where they are, (f) guiding students to load the paper bullet, then push it with the bamboo stick, while counting the number of sounds produced by the shoot, (g) explaining how to work together with a classmate and counting from 1 to 10 the number of sounds they hear from the rifle, (h) directing the safe way of playing *sodokoro*, by not pointing the instrument to other children's eyes, (i) encouraging students to express their arguments during the *sodokoro* game, (j) asking students to retell the events in the *sodokoro* game, (k) asking to the student some questions related to their experience during the *sodokoro* game, (l) asking to the student some questions related to things, objects, or materials used in the *sodokoro* game.

The students' activities being observed were: (a) listening to the teacher's explanation, (b) responding to the teacher's questions about how to play *sodokoro*, (c) observing the teacher's direction of the rule of the game when they were playing *sodokoro* without the teacher's involvement, (d) paying full attention to the teacher's explanation, (e) obeying the rule of the game, pronouncing words and sentences accurately, (f) paying full attention to the game and the lesson, (g) answering questions enthusiastically, (h) actively cooperating with others and playing the game seriously, (i) expressing words that emerged during the game, through intelligible body language, (j) setting out arguments to convince others about things that happened during the game, (k) retelling what happened during the *sodokoro* game, (l) orally asking and answering questions with *what*, *why*, *where*, *how many*, *how* and *who* words, (m) naming the name of objects/things related to the game, (n) naming game-related words/terms encountered during the *sodokoro* game.

The results of the observation during the teaching and learning process were classified on three categories: (a) *the learning process*, (b) *the utilization of the game instrument*, and (c) *the improvement of the students' fine motor skills*.

### The Learning Process

During this process, it was apparent that some students did not seem to follow the lesson, in particular when the teacher explained how to play the *sodokoro* game. This fact can be attributed to some factors. Firstly, the teacher did not give complete information about the activity the students were supposed to be doing. The teacher seemed to explain too quickly for the students to fully understand the explanation of how to play the game, how to use the instrument, and how to cooperate with others.

Another obstruction factor was the teacher's lack of ability to manage the classroom. Given the high dynamics of the game, *sodokoro* requires teacher to be able to manage his/her class very well. An ill-managed classroom can result in students doing activities which are not related to the learning objectives. In addition, some students can turn to be disruptive to other students.

It was also observable during the lesson that the teacher did not provide enough reinforcement, or appraisal, to those who could play the game well. This fact was obviously a serious

shortcoming, considering the importance of reinforcement on encouraging students to get involved in the next activity.

After a careful and effective reflection, all the problems emerged in the first cycle were identified and ways to deal with them in the second cycle were thought over.

### The Utilization of the Game Instrument

One serious problem in the first cycle was that evident that the teacher did not get used to utilize the media, resulting in the students unable to achieve the learning objectives. Another problem was the number of media provided was not enough for every student. Consequently, many students vied with others for the media, as was clearly apparent when they were trying to make *sodokoro* bullets out of small round of soaked paper with the size of the hole of the bamboo stick.

With the still undesirable condition noticed in the first cycle, it became necessary to precede the research into the next cycle. To address the problem with insufficient media, more media (instrument of the game) were made available. In addition, prior to taking actions in cycle II, a short workshop was conducted by some experienced teachers of Kendari of early childhood education, who trained the teacher to utilize the game instrument more skillfully. Thereby, the problem concerning the teacher's poor ability of utilizing the game instrument could be fixed well.

### The Improvement of the Children's Fine Motor Skills

In cycle I, the children's linguistics intelligence did not improve significantly. This was indicated by their unsatisfactory responses to the teacher's instruction to express words they encountered during the learning process. The same case was noticeable in the students' responses when they were asked to retell their experience during the *sodokoro* game. However, positive responses were received when the teacher used question words *what*, *why*, *where*, *how many*, *how* and *who* to ask the students about the game. The majority of the students answered correctly, although they spoke out at the same time. The teacher got the same positive responses when he asked the students to name objects or things related to the *sodokoro* game. The children could answer well. Another significant improvement could be seen in the children ability to produce game-specific words, such as *meremas* (to squeeze), *menatap* (to look at), *mengamati* (to observe), and others.

There was no significant improvement yet on the children's fine motor skills. Some students could not load bullet, which was soaked small round papers, into the *sodokoro* 'rifle'. This indicated that their hand-eyes coordination has not yet well-developed. The results of reflection shown that some learning indicators have not yet achieved during cycle 1, mainly because many children could not play the *sodokoro* game well yet. However, in cycle 2 this problem was solved after making the students more familiar with the rules of the game and the how-to-play procedure. As a result, in this cycle the students' motor skills improved very well.

The next stage of the class activity was to play a 'war game'. To play this game, the students were not allowed to go mobile. Instead, they had to maintain their position. Tables and desks, however, were arranged in such a way that the children felt like playing outdoors. The purpose of this activity was to help the children focused on sound, that is, whether or not their 'rifle' produced a loud sound. The children were reminded to point their rifle downward – they must not direct it towards someone's face. It was observable that with their teacher guidance the children could effortlessly do the activity. This indicated the success in developing the students' fine motor skills.

The next activity was counting the number of sounds produced by their bamboo rifle. From the observation, the students were able to make their bullet sound. However, in this activity the children seemed to lack of patience and care when pushing their bamboo stick, resulting in many broken sticks. The students were then taught how to correctly hold their bamboo rifle, paying attention to the good position of their feet and hands. The focus of this activity was how to play the instrument.

It was apparent from all the classroom activities in cycle 2 that the children's abilities connect to each other, that is, their motor ability, their linguistic ability, their cognitive ability, their social-emotional ability, and their art ability. These abilities could be improved as expected through those activities.

## 5. Conclusions

Early children have an excellent ability to learn. Therefore, it is very necessary to develop their intelligence, especially their linguistic intelligence. The process needs a teaching design and media that correspond with children characteristics. Games can be a good alternative for this situation. One of these is Sodokoro. The result imply that it needs further and in-depth studies that mainly related to the physique, psychic and sociological aspects of children in utilizing the game. Hence, the study recommend a curriculum development, both from government and nongovernment in order the study decided to be a model of teaching of the early childhood.

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