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### THE DEVELOPMENT OF *TELEPON KALENG* GAME AS A MEDIA TO STIMULATE LINGUISTIC INTELLIGENCE OF EARLY CHILDHOOD

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#### Abstrak

Tujuan penelitian ini adalah mengetahui kelayakan permainan telepon kaleng sebagai media untuk menstimulasi kecerdasan linguistik anak usia dini, serta mengetahui kelebihan dan kelemahan permainan telepon kaleng sebagai media pembelajaran. Metode penelitian yang digunakan adalah penelitian dan pengembangan (R&D). Prosedur pengembangan meliputi perencanaan, desain, dan pengembangan. Hasil validasi perlu perbaikan penggunaan kaleng dan perbaikan materi pembelajaran. Hasil uji coba kelayakan ke pengguna di beberapa TK di Ponorogo didapatkan hasil penelitian bahwa Telepon Kaleng layak digunakan untuk menstimulus kecerdasan linguistik anak usia dini. Telepon kaleng ini adalah apabila digunakan anak-anak dengan pola bebas lebih menstimulus kecerdasan linguistik daripada terstruktur. Kelebihan telepon kaleng ini sebagai media stimulus kecerdasan linguistik adalah adanya bentuk yang menarik anak dibandingkan dengan telepon kaleng tanpa diberikan aksesoris. Anak-anak cenderung lebih menyukai hal-hal yang cerah dan menarik perhatian. Kekurangan telepon kaleng ini, apabila digunakan terus-menerus akan menimbulkan kejenuhan sehingga perlu bergantian dengan alat permainan lain.

#### Abstract

The aim of this research is to determine the validity of telepon kaleng game as a medium to stimulate the linguistic intelligence of early childhood, as well as to know the merits and drawbacks of telepon kaleng game as learning media. The research method used is research and development (R & D). Development procedures include planning, design, and development. Product validation is done by alpha test, beta test, and final evaluation. *Apha test* is validated by an expert in material development and an expert in teaching-media development. Meanwhile, the subjects in *beta test* are students BA Aisyiah Yanggong and BA Aisyiah Wonoasri Jenangan District, Ponorogo Regency. The result of this research is the development of telepon kaleng game as a media to stimulate linguistic intelligence of early child. The tools and materials used in this development are used-can, thread / rope, flannel, scissors, and double tape. Material experts and media experts have validated telepon kaleng products developed. From validation, the results need to improve the use of tin cans and the improvement of learning materials. In the next stage, feasibility testing for users in BA 'Aisyiah Yanggong and BA' Aisyiah Wonoasri Jenang Subdistrict of Ponorogo Regency, from the result of the experiment showed that telepon kaleng could be used to stimulate the linguistic intelligence of early child. These telepon kalengs, when used in unlimited form by children, stimulate linguistic intelligence more than IN structured-form. The merit of telepon kaleng as a linguistic intelligence stimulus medium is an attractive form of the child compared to telepon kaleng without any accessories. Children tend to prefer things that are bright and engaging. The drawback of this telepon kaleng, if it is used continuously, is that it will lead to monotonous learning process so it needs to alternate with other game equipment.

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## **INTRODUCTION**

Linguistic intelligence is an intelligence associated with the language skills of children. This intelligence can make children speak and communicate well. According to Gardner as cited by Munif Chatib (2011: 56) linguistic intelligence is a form of intelligence associated with sensitivity to the sound, structure, meaning, function of words and language.

Through this intelligence, a child is able to listen, read, write, and speak. Thus, linguistic intelligence is very important for children. Therefore, this intelligence should be introduced and developed optimally for children earlier.

Introducing, stimulating and developing early childhood linguistic skills are not easy. In addition to their early age, children tend to do fun activities. Because it cannot be denied, that one of the characteristics of early childhood is playing. With this condition, the introduction and development of linguistics for children means that it deals with fun activities. One of the medium is using telepon kaleng game.

Telepon kaleng game is a traditional game that has been widely

known by older generation. This game is very cheap, simple, safe, and easy to use for children. In addition, the game can make children more creative, especially in developing linguistic competence. However, unfortunately this game is now be forgotten and abandoned by children. One of the causes is the model of the can and the way to play it, which seems monotonous and less interesting. In addition, the development of technology also influences a lot, particularly digital games. This fact makes children prefer to play digital games and play-stations rather than traditional games. However, it is important to preserve and introduce traditional games to the children.

Therefore, telepon kaleng game need to develop and modify, so it can be more interesting and have a better educational value. By developing telepon kaleng game, it is expected to attract children's attention. Therefore, this game can be used as a medium to stimulate the linguistic intelligence of early childhood.

Based on the background of the study, research questions for this study are described as follows:

1. How is the development of telepon kaleng as a medium to stimulate early childhood linguistic intelligence?
2. How is the validity and quality of telepon kaleng as a medium to stimulate early childhood linguistic intelligence?
3. What are values and drawbacks of telepon kaleng as a medium to stimulate early childhood linguistic intelligence?

## **LITERATURE REVIEW**

### **Telepon Kaleng**

Telepon kaleng is defined by two words: telephone and tin can. Great Indonesian Dictionary has described telephone as a communication device with electricity and wire to talk between two people who are in distance (Language Center, 2008: 1426). Meanwhile, tin can is a thin iron tin-plated; place of oil (water, milk, etc.) made from metal (Language Center, 2008: 608). From both definitions, it can be concluded that telepon kaleng is a communication device to help two or more people far apart to communicate by using tins of oil, water, milk, and others as the medium.

Telepon kaleng is categorized as game because this tool can be used as a medium for children playing conversations with each other. By using telepon kaleng, children can get fun and learn, for example knowing various sounds, sounds, and conversations.

Telepon kaleng belongs to traditional games because it has existed since ancient times and passed down from generation to generation until now. This game is made of milk cans or bottle glass where in the center of the bottle is hollowed and given yarn as a connector between the bottles with each other, so it can be used for media conversation or communicate between two or more children.

Seen from its definition, it can be identified that telepon kaleng has several benefits for children who play it such as training children to talk and communicate, training children to socialize, shaping children's creativity, and controlling children emotionally.

### **Linguistic Intelligence**

Linguistic intelligence is one of the multiple intelligences proposed by Howard Gardner.

According to the theory of multiple intelligences, there are eight intelligences that may be possessed by a person or a child. Those are linguistic, mathematical-logical, visual-spatial, musical, kinesthetic, interpersonal, intrapersonal, and naturalist (Munif Chatib, 2011: 56).

The intelligence term means the ability to solve problems or produce something that is needed within a particular cultural setting (Asri Budianing, 2005: 113). Meanwhile, linguistics is related to the understanding of language. Therefore, linguistic intelligence is an intelligence that is focused more on the development of one's language. Another opinion states that linguistic intelligence is the intelligence in word processing or the ability to use the word effectively, both spoken and written (Yuliani, 2009: 185). Munif Chatib (2011: 56) explains that linguistic intelligence is closely related to reading, arguing, and debating. It means that the child's traits are more visible in terms of communicating, conversing, and interacting with others.

Developing linguistic intelligence has five purposes:

1. Children are able to communicate well both spoken and written language.
2. Children are able to persuade people.
3. Children are able to remember and memorize the information.
4. Children are able to explain something.
5. Children are able to discuss the language (Yuliani, 2009:185).

For children, linguistic intelligence is very important, because this intelligence will train children to speak and communicate well from an early age. Therefore, the development of linguistic intelligence should be continually applied, so that children become those who have the ability to listen, read, write and speak well.

### **Early Childhood**

Early childhood is defined as the period from birth to 6 years old. The Act No. 20 of 2003 paragraph 1 article 28 on National Education System states that children who included in early childhood are those who are in the period of 0-6 years. In the other hand, according to the international early childhood education, early childhood is those

who are in the period of 0-8 year old (Fadlillah, 2012:3). From that definition, it can be concluded that early childhood are children in the period of age 0-8 year old since this statement can cover both definitions.

The infants and children differ structurally from the adults in a number of ways. The infants and children have unique characteristics, such as like to play, imitate, and have high curiosity and imagination. Moreover, They also have an incredible comprehension to build their knowledge. According to Gardner, as quoted in Mulyasa (2012: 4), early childhood stage plays a significantly important role in human development because in this stage, the human brain are developed in a leap experience and a rapid development which reached 80%. When they are born, a child had achieved 25% of brain development, as they reached the age of 4, their brain developed by 50%, and when they reached the age of 8, the development reaches 80%. The rest of developments are gained until they reach the age of 18.

This explanation gives information that children in early childhood period have tremendous

potentials that are ready to be developed. One of them is linguistic intelligence, in which this intelligence provides the children the knowledge and understanding on how to talk and communicate.

## **RESEARCH METHODOLOGY**

This research is a field research conducted using research and development (R&D) method. Research and development study is a research that involves processes or steps of developing a new product or refining an existing product that can be further justified (Nana Syaodih Sukmadinata, 2007:164). The products resulted in such study can be either software applications or real object like books, modules, learning program packages, or learning tools.

According to Sugiyono (2011: 297), research and development (R&D) is a study that is conducted to produce a certain, specific product as well as to test its effectiveness. Thus, an R&D study is intended as an attempt of developing certain available products or creating brand new products that have never been made before. In this research, the product that is going to be

developed is telepon kaleng game, a learning tool that is used as a media to stimulate children's linguistic intelligence.

The model that is used to develop this telepon kaleng game is the Alessi & Trollip model of development. According to Alessi and Trollip, as cited by Setyoadi (2011: 20), there are three development steps of development in this model, they are planning, designing, and developing.

During the planning stage, the researcher plans the model of the telepon kaleng game that fits the needs of children in early childhood stage, and searches for the materials needed. Designing is the step in which the researcher draws the shape or model of the product being developed based on the planning had been conducted before. Thus, that the media can be created as what is intended. Meanwhile, the development stage is giving additional values or modifies the current telepon kaleng games to be more valuable, interesting, and loved by children.

After the product of telepon kaleng game has been completely developed, the next step is testing the

product. In this case, the test is conducted in three tests, namely alpha test, beta test, and final evaluation. Alpha test is a test that involves some experts in material and media development. Beta test is a limited test that involves only a few students. Lastly, the final evaluation is the final test to determine the quality of the product. These tests involve all students as they are considered representing the use of the media or the product.

## **RESULT AND DISCUSSION**

### **Hypothetical Model**

The hypothetical model of this study is divided into two parts. The first is the telepon kaleng and the second is the guideline of linguistic intelligence material of utilizing telepon kaleng. In this case, the product is developed based on the preliminary study by coordinating with the school. From this, there are several things are found to be considered: 1) the sub-themes of the learning material are My Favorite and Daily Life, under the theme of My Needs; 2) the tests are planned to be conducted in the third and fourth week of September 2017; 3) the material to be used in the learning

activity should be determined purposively so that it can stimulate early childhood linguistic intelligence significantly.

### **Expert Validation**

The product developed in this study was tested by using alpha test from both material experts and media experts. The expert of material validation is Ida Yeni Rahmawati, M.Pd., while the expert of media validation is Muhibuddin Fadhli, M.Pd.

Based on the validation of both experts, some suggestions are given to be considered. First, the telepon kaleng games should be made in more various types and in a safer way for younger children. Secondly, it is better to deliver a simpler learning material so that children can understand it easily. Lastly, the size of the string used in the phone games should be purposively selected to fit children's comprehension and development.

Quantitatively, the media expert gave score 3, 44 with good criteria. In the other hand, the material experts gave average score 3, 11 with fair criteria. From these results, some improvements should be conducted

so that the product is more appropriate for children.

The development of this telepon kaleng games is conducted through several steps. They are:

1. Melakukan analisis materi linguistik anak usia dini. Analyzing the linguistic material of early childhood.
2. Designing the telepon kaleng games.
3. Preparing the tools and materials, such as cans, strings, flannel, double-sided tape, scissor, and cutter knife.
4. Creating the telepon kaleng based on what is planned and intended.

From this development study, a learning media in form of telepon kaleng game is developed and it can be used as a learning media to stimulate the linguistic intelligence of children in early childhood stage. However, the product has not been tested to the designed users.

### **Feasibility Test**

The feasibility test of telepon kaleng media as a tool to stimulate linguistic intelligence was conducted in BA Aisyah Yanggong and BA Aisyah Wonoasri. From this test, it

is known that the product is feasible to use. The children in both preschools have never used a telepon kaleng before. That is why they are very enthusiastic in using the media.

Quantitatively, the feasibility test of the product obtained average score of 4.23 with very good criteria in BA Aisiyah Yanggong and average score of 4.12 with very good criteria in BA Aisiyah Wonoasri. This implies that telepon kaleng games can be used as a media to stimulate linguistic intelligence.

Another result obtained in this study is that young learners prefer more on unstructured communication rather than structured communication stated in the material guideline. In this case, the teacher should give clear explanation during the apperception.

### **Final Product**

The final product of this study is the modification of telepon kaleng game. Broadly speaking, this product has strengtness and weakness. The strengtness is that children are very interested to use this telepon kaleng, so that they are able to understand the learning material given well. In the other hand, the weakness of this

media is that children may find it boring and uninterested anymore if it is used continuously.

## **CONCLUSION AND SUGESSTION**

### **Conclusion**

This research resulted a game product in form of telepon kaleng game as media to stimulate early childhood linguistic intelligence. Moreover, it has been tested and validated by material experts and media experts. In addition, the tin phone media has also been tested in BA Aisiyah Yanggong and BA Aisiyah Wonoasri with excellent feasibility test result. Therefore, it can be concluded that the development of telepon kaleng game as media to stimulate early childhood linguistic intelligence is consistent with the results of the tests.

### **Suggestion**

The development of this media still requires some improvements to make it more various in designs and models so that it will be more interesting for children. Besides, the learning materials should be packed to be



simpler and it should be tailored to the theme of learning material.

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