

Improving Children's Early Reading Skills Using Home Environmental Print Model

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Abstract: The issue that underlies this research is the poor development of children's early reading skills. This research aims to establish an effective and efficient model in stimulating early reading skills of children aged 4-5 years in Padang. The research used Research and Development from a combination of Borg & Gall and Dick & Carey design. Three major stages in conducting the process of research are (1) needs analysis (2) product development (3) testing. The research employed two times field testing, marking parents and fellows' suggestions. Besides, the model is finalized by the expert's recommendation. The effectiveness test of the model showed that children's early reading skills have improved using home environmental print.

Keywords: early reading, environmental print, home-based

I. INTRODUCTION

Early development and interest in reading is advantageous for children's intelligent development in later years. As pointed out by education expert, Montessori, that early reading skills can be stimulated at an early age. Mastering age-appropriate reading skills greatly contribute to the aspects of children development, such as confidence, social and cognitive. However, preliminary study on several early childhood education (hereafter referred to as PAUD) institutions in Padang showed that early reading skills of children age 4-5 are less developed.

Interview with educators and coordinators of PAUD institutions in preliminary study confirms that children have low development and interest in reading. The interview also exposed the effort undergone to stimulate children's early reading skills, but the good result has yet to come. One of the factors underlies the problem is the insufficient stimulation support from parents. Stimulation of children's early reading skills has been handed over to PAUD institution.

Several problems found from interviewing 20 parents (mothers) in the preliminary study are; 1) 30% of parents have a poor understanding of PAUD institution. Parents assume PAUD has full responsibility in stimulating children's early reading skills and they only need to pay. 2) 35% of parents are not able to spare time for stimulating their children at home due to their work. 3) 45% of parent claim that they barely know about stimulating children's early reading skills at home.

Reading is a complex activity for its association with other skills. Frankel, Becker, Rowe, & Pearson (2016) explained that reading is a process to understand the meaning of writing. Reading activity involves 1) introduction of letters 2) sound of letters and word 3) meaning and comprehension of narrative context.

The development of children potencies and intelligence is related to the family active role. Children's reliance on their family is the reason why home takes a pivotal role here. From the problems addressed in the preliminary study, the writers employ development research. This research was undertaken to generate a model by optimizing the family role in stimulating children's early reading skills.

II. THEORETICAL STUDY

Early education experts asserted that children's early reading skills can be stimulated at early age. Several experts like Bromley (1997) and Papalia, Old, & Feldman (2009) explained that acquisition of early reading skills positively influence children development on several aspects such as self-confidence, social aspect and cognitive aspect. Therefore, the process of stimulation needs to be implemented correctly and addressing the children characteristics.

1. Early Reading Skills Concept

According to Santrock (2002) language is a symbol system in communication, including phonology (sound unit), morphology (meaning), syntax (sentence structure), semantics (meaning variations) and pragmatics (language use). When using language skills, every individual including children can convey their intention, purpose, idea, and feeling to others. Owens in Papalia et al. (2009) explained that children of 4-5 years old are capable of using 900-1000 different vocabularies. They can use 4-5 words in one affirmative, negative and interrogative sentence.

Children's early language development consists of speaking skills, writing skills, reading skills, and listening skills. The four skills are correlated with each other. Adults' knowledge of characteristics of early language

development can naturally help in providing a proper and suitable experience for children (Ismaniar, 2017).

Furthermore, Sousa (2011) argued that reading activity is a challenging activity for children because, in the nervous system, the brain has no specialized area for reading. Hence, to acquire reading skills, it needs conducive support from the environment.

Reading is a complex activity associated with several skills. It is integrated with assorted activities such as identifying letters and words, connecting them with sound and understanding the meaning as well as the conclusion of the reading (Ismaniar, 2013). In this context, Frankel et al. (2016) also pointed out that that reading is a process to understand the meaning of writing. Reading activity involves 1) introduction of letters 2) sound of letters and word 3) meaning and comprehension of narrative context.

Leonhardt (1999) affirmed that early reading skills are important. Several reasons to grow fondness of reading at early age are 1) children's pleasure when reading help them to attain good reading skill and spend their days positively on reading 2) children's fondness for reading makes them store advanced vocabularies which support their speaking and writing ability, as well as their understanding of difficult ideas. 3) Reading provides children a wide range of knowledge which helps their learning activities 4) reading plants affection in children 5) children who enjoy reading can develop creativity 6) children who enjoy reading always have solution or alternative when coping with problems. For these reasons, parents need to support their children's early reading skills, so their language development is optimized. It should be noted that the stimulation needs to be carried out by paying attention to their characteristics and without force or pressure.

To acquire good result from the stimulation, parents and educators should understand the development steps of early reading skills. As stated by Cochrane in Brewer (2006), that early reading skills of 4-6-year-old children take five stages namely 1) magical stage 2) self-concept stage, 3) bridging reading stage, 4) take off reader stage and 5) independent reader stage.

2. The Learning Method of Early Childhood

The method used for stimulating children's development is not similar to the learning method for adults because of their different characteristics. A wide range of knowledge and skills of parents and educators about early childhood characteristics and learning styles will guide them to choose the appropriate method in stimulating children. Generally, there are four suitable methods for children's characteristics and learning styles: playing, singing, story-telling, and conversation. Each method can be combined under the materials or aspects which are developed for children. The four methods have been developed in various findings of the research and creating new methods like constructive and kinesthetic methods.

As a matter of fact, playing method is the most usable method in developing the aspects of early childhood development. Hurlock in Musfiroh (2008) defines play as any activity engaged in for the enjoyment

it gives, without consideration of its result. Santrock (2002) believed that pleasurable activity that is engaged in for its own sake. Meanwhile, Freud and Erikson in Santrock (2002) stated that play is a form of adaptation to help human controlling anxiety and conflict. In addition, Piaget in Santrock (2002) also asserted that play is a media to improve children's cognitive development.

Referring to the arguments above, the environmental print in this research is a play which is conditioned in the home environment. The media includes printed texts attached in every object, furniture, and property. This way, children will find pleasure and improve their ability. The concept itself begins from the things they found in their surroundings and daily life with the support of the family.

3. Definition of Environmental Print

Environmental print is a term used to describe a condition in which the print appears in our surroundings. We encounter various letters, words or sentence in various places, objects or properties. Adults actually can utilize those printed texts as the learning resource for early language development.

According to Neumann, Hood, Ford, & Neumann (2012) in the journal of early childhood literacy entitled "The role of environmental print in emergent literacy" published by Sage Publications in 2012 Volume 12, street signs, candy wrap, the label on peanut butter and K in Kmart are the examples of environmental print. Adults can use those prints and talk about them, or playing the license plate game during a long car ride, (everyone finds an A, now a B). Playing with environmental print can be quick and easy.

Stimulation of early language development using environmental print can be implemented everywhere and is not time-bound, as this model only makes use of things around the children. However, in this research, the writers design a particular model in which environment only takes place at home. Since parents have to work, they may not have much time to take the children outside. Thus, the home environment is chosen as it is interesting and only use objects from daily basis.

Even without books, children can enjoy reading. Media such as door, window, furniture, and tableware are applicable to support the stimulation of early reading skills. The environmental condition is designed following the stages of children early development. Hence, the home environmental print will provide children with the opportunities to interact with letters, sound and, words.

III. METHODOLOGY

The procedures used in this research are Borg and Gall's Research and Development. The stages include 1) preliminary study and needs analysis 2) instructional analysis 3) behavioral identification and initial characteristics 4) design 5) development of the draft model 6) preliminary field testing (first draft model) 7) revision; expert and fellow examination 8) main field testing (Second draft model) 9) final revision 10) finished model/ report (Gall, Borg, & Gall, 2003). The sample was taken for this research using purposive sampling technique. The subjects selected for the preliminary field

testing were 20 children aged 4-5 years old. The subjects for the main field testing were 25 children. All the subjects are living in Padang. Data collection was conducted by observation, interview, questionnaire, and test. Meanwhile, the writers developed their own instrument to measure the improvement of children's attention span along with the expert examination for instrument validation. Data analysis was conducted using qualitative and quantitative approach.

IV. RESULT AND DISCUSSION

Findings of the research showed that 1) from the preliminary study in several PAUD and interviews with educators and coordinators in Padang, the stimulation of early reading skills are reinforced only by PAUD institution. Parents have yet to employ any approach to stimulate their children's early reading skills at home. This means the home environmental print is an innovative model in stimulation early reading skills. 2) Home environmental print is designed with thorough theoretical study and several processes of field testing. The model is addressing early childhood characteristics and considering parents' incapability in stimulating their children 3) Home environmental print products include guidance book, play media and instrument of early reading skills development. Besides, fellow recommendation and expert validation

confirmed that home environmental print is effective to stimulate children's early reading skills. The model suggested is described as follows.

The first test was conducted to 20 children ranged from 4-5 years in Padang. The result of t-test was $t_{count}=8.32$ and t_{table} (using a one-tailed test with a significance level of 0.05, $n-1=19$) is 2,09. Hence $t_{count}(8.32)>t_{table}(2.09)$. From the comparison between the initial assessment and final assessment, we can conclude that children's early reading skills have improved. The second test, involving 25 children ranged from 4-5 years in Padang. From the data process, t_{count} is 6.4 and t_{table} (using a one-tailed test with a significance level of 0.05, $n-1=24$) is 2,06. Hence, $t_{count}(6.464)>t_{table}(2.06)$. The result implies that children's early reading skills have improved after applying home environmental print model. The result of the research showed a correlation between early reading skills and parents participation. Parents' creativity in optimizing time at home highly influences the children's skills development particularly early reading skills. Parents should bear in mind that the stimulation needs to be following children characteristics and development. On that premise, home environmental print is an effective and efficient solution to solve parents' problem regarding early reading skills development.

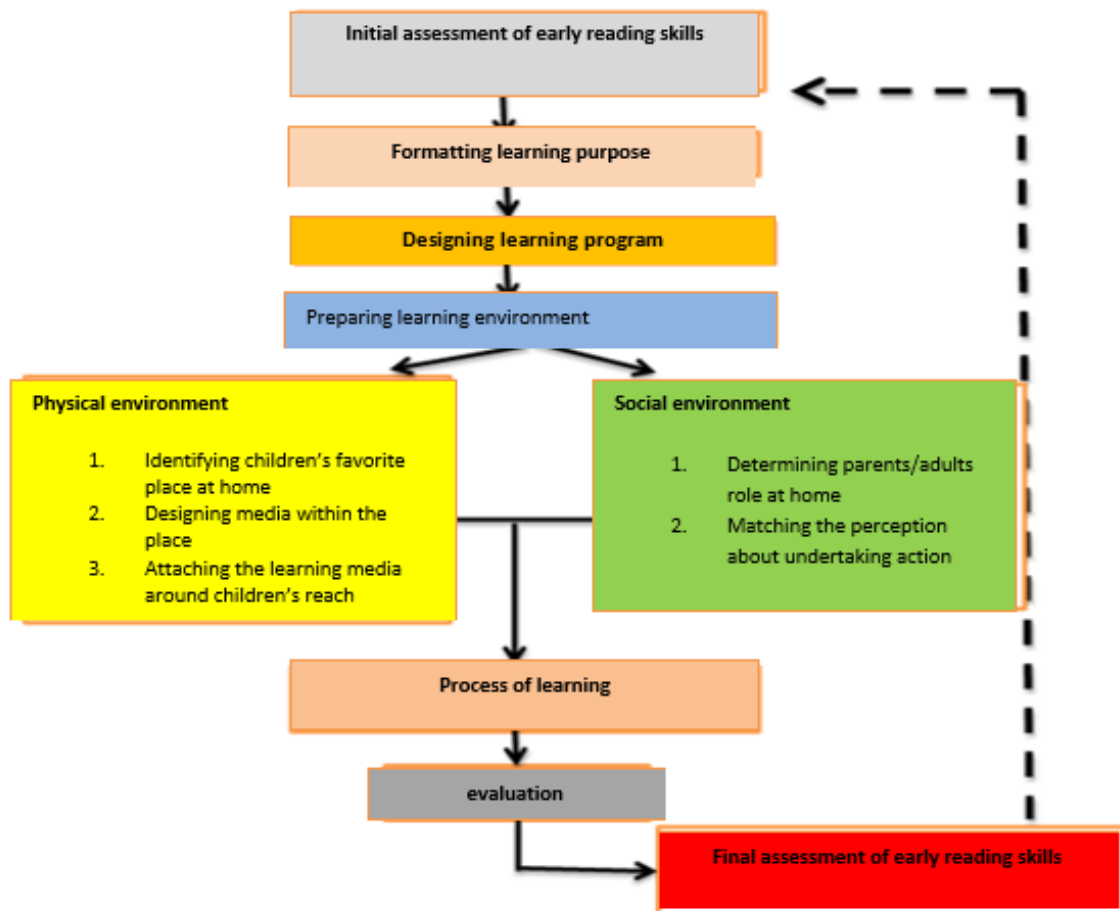


Figure 1
Home Environmental Model Design to Improve Early Reading Skills of Children Aged 4-5 Years Old

Early reading skills should be stimulated in early age because reading skills are not simple and rather a complex activity involving various activities at the same time. Raines and Canad in Dhieni, Fridana, Muis, Yarmi, & Wulan (2014) emphasized that the reading process is not merely translating words to understand the meaning of the content. The reading activity is actually more complex as it takes a construction process integrating interaction between the text and children's experience.

If children are not exposed to reading at early age, they will later face difficulties in mastering reading skills. We must note that reading does not simply mean pronouncing letters or words, it comprises various activities; identifying letters and words, connecting them with sound and understanding the meaning as well as the conclusion of the reading. In this context, Frankel et al., (2016) also pointed out that that reading is a process to understand the meaning of writing. Reading activity involves 1) introduction of letters 2) sound of letters and word 3) meaning and comprehension of narrative context.

Moreover, we need to take another learning principle into account. Thondike in Ismaniar (2018) from Law of Exercise explained that any activity becomes internal when someone is exposed to or engage in it. Family participation will provide comfortable feelings towards children because family (parents) is the ones who most understand the children's characteristics, talent, interest and enjoyable activities. Home environmental print allows parents or adults to exercise children's reading habit by looking out to their uniqueness and utilizing the objects in surroundings.

Neumann et al. (2012) stated that adults can use the prints they encounter at any places and talk about them in stimulating children's early reading skills. For instance, they can play the license plate game during a long car ride, where parents and children compete to find and spell the words. In terms of environmental print model, the implementation of home environmental print is more effective and efficient compared to the common environmental print. The reason is that the model only utilizes media and objects available at home and that parents do not need to go outside. So, parents will have the opportunity of using this model despite the busy working days.

V. CONCLUSION

Based on the researched conducted, we come to several conclusions, there are (1) parents have yet to find a particular method to stimulate their children's early reading skills at home due to their lack of knowledge about the function of PAUD and their work. Thus, they only rely on teachers in PAUD. (2) Home environmental print model is invented through a detailed theoretical study. Besides, this model addressed children's diverse characteristics and parents' problem in stimulating their children. It also provides a guide book, learning media, and instrument of early reading skills instrument. To ensure the expedience of the model, validation is carried out by the relevant experts. (3) The test on the learning

model has shown that home environmental print improves children's early reading skills.

In response to the result of the research, we propose some suggestions, (1) Parents are advised using home environmental print in stimulating children's early reading skills. (2) Policy makers are expected to be responsive towards problems which disrupt the process of intellectual development. So, the problems can be solved at early age. (3) Academician, particularly in the field of childhood education, is expected to pay attention and improve studies on early intelligence development. (4) Lessons conducted by the teachers integrate the values of character for students. The learning process used as a vehicle for the internalization of the application of character for the students. When students have implemented good character, teachers ensure students stay implements the characters in their everyday life. Principal and teachers became actuate at the same time example for the students.

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