

USING PICTURE BOOK AND DIALOGUE TO RAISE KINDERGARTEN CHILDREN CRITICAL THINKING ABOUT ENVIRONMENTAL EDUCATION

**Titi Chandrawati¹, Susy Puspitasari², Yusrafiddin³, Sri Tatminingsih⁴,
Yos Sudarso⁵, Untung Laksana Budi⁶**

Faculty of Teacher Training and Education, Universitas Terbuka

*Email. titich@ecampus.ut.ac.id*¹,

Abstract. This descriptive study addressed the use of a picture book and dialogue approach in raising kindergarten children critical thinking about environmental education. This research used qualitative approached with observations and interviews as the research tools to collect data. In this research the kindergarten teachers had to read and show a picture book to their kindergarten students. Then, there was a dialogue about environmental education between the early children and the teachers. The teachers had to prepare give some questions about the pictures in the book that can raise early students thinking skills. Teachers also had to ask their early children to tell what the children saw in the book. A big book with some pictures about garbage or caring for plants were provided. The teachers also had to remind their early students about Indonesia that has many environmental problems. In this study, the kindergarten teachers did a discussion with their early students about ways to protect our environment. The teachers also asked the one student to read the book by herself and then, asked her to tell the content of the book. The researchers observed and recorded how the behavior and words spoken by children when they were discuss and did the dialogues with the teacher. Results indicated that the use of a picture book then followed by dialoging can raise the kindergarten students' critical thinking.

Keywords: picture book; dialogue approach; critical thinking; environment education; kindergarten

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INTRODUCTION

Chandrawati (2023) wrote that in Indonesia, people are still have lack of environmental awareness. Therefore, Indonesia has many environmental problems such as flood, many garbage, plastics garbage in the rivers and seas. Also, Indonesia loses many forests that have changed into people houses and oil palm plantations. This fact shows the lack of public awareness of

environmental problems. Based on this facts, teachers have to educate students about environmental education.

Kindergarten children is the children in their golden age. This young generations need to be educated and reminded about environmental education from their young age, in order to be carried into adulthood (Siregar, Meilani, Purwanto, 2021). However, there are current challenges in educating the community and children to be more sensitive to environmental issues such as the lack of environmental education from the kindergarten teachers.

Recent studies show that environmental education can be increased in the early childhood years introduce more ecoliteracy-related content into the classroom (Elliot & Davis, 2009; Pilgrim, Smith, & Pretty, 2007; Torquati, Culter, Gilkerson, & Sarver, 2013). While nature play has been advocated as a method for introducing ecoliteracy to young children (Moonstone, 2016) some experts are critical of this being emphasized as an alternative for early childhood ecoliteracy education. They suggest it reinforces the notion that children are incapable of understanding sustainability issues (Elliott & Young, 2016). In their article detailing the resistance to ecoliteracy education, Elliott and Davis (2009) note that early childhood environmental education experiences were overly focused on nature play to the detriment of sustainability education, even though sustainability education can be provided in an age appropriate manner. This research focus to kindergarten children since children in their early age are in their golden age. Kindergarten children have many room and capabilities to learn and to absorb many knowledge, many information, and many thing. As Indonesians, children have to learn about many literacies that can make them a good Indonesians. One literacy that has to be learned by Indonesians is environmental literacy. The literacy is very important since we as Indonesians have to protect and save our environment and to keep our environment clean and healthy. In order to keep our environment to be clean and healthy is an important thing that all Indonesian children should be learned is about being Indonesia. Not aware and not having some knowledge about preserving our own environment can make our society which started by our children loosing their own identity, loosing their own ethics and many good qualities that should be inherited from older or elderly people (Harususilo, 2019).

There are significant advantages in using picture books as mentor texts for children in early elementary education. The juxtaposition of pictures and words engage and challenge young

learners to acquire knowledge in multiple ways. Studies show that using picture books in early childhood can stimulate cognitive development (Debby, 2007; Tien & Wu, 2010). Based on strong ties between cognitive development and the use of picture books, as reported by researchers, Kümmerling-Meibauer and Meibauer (2013) suggest a cognitive theory of picture books. Picture books serve as a perfect tool for both learning and cognitive engagement in young children (Cleveland, 2015). Use of picture books has also been linked with enhanced language development. Debby (2007) noted that thinking and speaking about the pictures and then expressing opinions or emotions about them improved language acquisition. Picture books have also been used successfully for interventions that encourage language development in children. For instance, language development in children from low-income backgrounds greatly improved when they were provided picture book reading intervention sessions (Kim, Lee, & Pae, 2013). Several studies report the successful use of picture books for providing environmental education. Hsiao & Shih (2016) used eight picture books to instruct environmental concepts, especially the problems and the overuse of resources resulting from human activities. As an outcome of the project, children learned to conserve resources by bringing their handkerchiefs to school to replace disposable tissues, using less water while washing their hands and brushing their teeth, and reducing the amount of drawing paper they used for doodling. While their use of plastic bags did not change, the students in this study responded overall by undertaking several important pro-environmental actions. Wordless picture books also promote a special and symbolic relationship between humans and nature (Ramos & Ramos, 2011). Young children tend to have a positive attitude towards nature and science (Osborne, Simon, & Collins, 2003). Thus, there are more picture books about nature and animals for young children than books about either engineering or technology (Cleveland, 2015). This positive attitude can be leveraged with the use of picture books to tutor critical thinking skills at an early age (Roche, 2014). Based on what stated in the background, the researcher tried to emphasize early childhood educators such as the kindergarten teachers to introduce and to teach and to familiarize their early students to raise kindergarten children awareness and knowledge about environmental education. To develop early childhood environmental literacy skills, environmental learning activities for children from an early age need to be planned, prepared and implemented with an approach that is appropriate to the development of early childhood mindsets, including using dialogue. Based on some of the results of these

studies, the research team carried out activities to increase awareness and knowledge of kindergarten children with dialogue. The purpose of this research is to develop early childhood awareness to care for their environment using dialogue

Ostroff (2020) said that learning in dialogue runs deep in the human race; such as in asking questions, deliberating, sharing experiences, and negotiating truths. Dialogue exercises all the complex cognitive skills (and corresponding brain functions) that we know enhance school performance, including executive functions such as planning, problem solving, and negotiating rules, and self-regulation skills like inhibition and emotion regulation (Vitiello & Greenfield, 2017 in Ostroff, 2020). Kindergarten children easily and naturally embody all the key ingredients to dialogue by asking questions, thinking divergently, being present, and taking intellectual risks.

Moreover, Freire (2000) stated that "Without dialogue, there is no communication, and without communication, there can be no true education". Hence, dialogue can overcome banking education since banking education is monological, and constituted by the teacher's view of the world (Beckett, 2018). Even, in kindergarten dialogue can help the early children to enhance early students critical thinking ([Granone et al, 2021](#)).

Environmental Education (EE) is a process in which individuals gain awareness of their environment and acquire **knowledge, skills, values, experiences,** and also the **determination**, which will enable them to act - individually and collectively - to solve present and future environmental problems. Environmental education is aimed at producing a citizenry that is knowledgeable concerning the biophysical environment and its associated problems, aware of how to help solve these problems, and motivated to work toward their solution. EE is an effort to change the behavior and attitudes of a person or community that aims to develop knowledge, skills and public awareness about environmental values and environmental issues so that they can make other communities play an active role in environmental conservation and safety efforts for the benefit of the community who will benefit from it. come. Environmental education studies environmental problems, especially problems and management of pollution, environmental damage as well as resources and conservation (<http://konservasi.unnes.ac.id/2014/02/18/bahan-ajar- Pendidikan-lingungan-live/>). In Indonesia kindergarten children is early children from 0-6

years. The early children go to kindergarten school to increase their ability in order to go to the elementary school and to have live skills.

Based on the problem, this research questions of the study were: “How the use of picture book and dialogue can raise Kindergarten Children critical thinking about Environmental Education?”

METHOD

This study was using descriptive study and it was conducted in TK Mawar Padang Pariaman in August 2022. A descriptive study is one in which information is collected without changing the environment (i.e., nothing is manipulated). Sometimes these are referred to as “correlational” or “observational” studies. The Office of Human Research Protections (OHRP) defines a descriptive study as “Any study that is not truly experimental.” In human research, a descriptive study can provide information about the naturally occurring health status, behavior, attitudes or other characteristics of a particular group. Descriptive studies are also conducted to demonstrate associations or relationships between things in the world around you (https://ori.hhs.gov/education/products/sdsu/res_des1.htm). Descriptive studies can involve a one-time interaction with groups of people (cross-sectional study) or a study might follow individuals over time (longitudinal study). Descriptive studies, in which the researcher interacts with the participant, may involve surveys or interviews to collect the necessary information. Descriptive studies in which the researcher does not interact with the participant include observational studies of people in an environment and studies involving data collection using existing records (e.g., medical record review) (https://ori.hhs.gov/education/products/sdsu/res_des1.htm).

Since the researcher knows the kindergarten teachers so the researcher could ask the teacher in the kindergarten to help in implementing the study. The study was using these steps as follow: developing the plan, learning the book, in introducing about garbage and environmental problems in Indonesia to early children; approaching the kindergarten and asking a permission to do the study; introducing and giving two books to the teacher who agreed to help the researcher; preparing various things to carry out research on dialogue about the books’ content to early childhood together with the teacher including preparing the media such as the books;

implementation in the class, reading the books and taking pictures and taking notes concerning the implementation; interviewing the teacher to know what she learnt from implementing dialogue with students to talk about the content of the book revising the plan and developing the conclusion.

RESULT AND DISCUSSION

The results of this study were: the use of picture book and dialogue can raise kindergarten children critical thinking about environmental education. In this case, the kindergarten teachers asked some questions about the picture in the books. The examples of the questions were such as what did you see in this picture? Can you explain what did you see in the picture? why we produce garbage, why we should put the garbage in the rubbish bin, how if we did not throw our garbage in the bin?. Some kindergarten students seem interested in watching the pictures and they pointed to the picture, the students also tell a story about their experiences at home. There was also a student who wanted to read the book for their friends

Results indicated that both the kindergarten teachers and their students gain more knowledge and more awareness about environmental education by doing dialoging approach. And the kindergarten teachers were firstly learn and also teach about environmental education using a picture book. The teachers and their students were interested with the picture book. It is hoped that after learning about environmental education from the picture and from the dialogue with the teachers, the kindergarten children in their early years can have some awareness about protecting and caring their own environment.

Table 1. Observation sheet

Questions from the teachers	ECE Students answers	ECE Students behaviors
What did you see in this picture	5 students can answer	Students are excited
Why we should not throw garbage any where	3 students can answer	Students are excited
How can you make your house yard clean	6 students can answer	Students are excited and interested with the book

What do you think if there are many garbage in our school or house	5 students can answer	Students are excited
Give some examples How can you make your house yard clean	4 students can answer	Students are excited

CONCLUSION

From the study the researcher can conclude that environmental education could be learned by early students by dialoging using books and stories. Early students and also the teacher found out that learning environmental education and environmental literacy is not difficult but the teacher should always aware and try to introduce their early students with caring the environment. It is hoped that by raising and having knowledge about environmental education could help the successors of Indonesia to care with their own environment.

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