

Empowering Parents: The Conceptualization Of Marine Environmental Awareness In Early Childhood

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Abstract

The concept of marine environmental awareness needs to be instilled from an early age. This study aims to explore the empowerment by parents in conceptualizing marine environmental awareness in early childhood. This research uses a qualitative case study approach with interviews, observation, and reflective journals from researchers. Participants in this study were the two main participants, boys aged five years and ten years who are siblings, also involving parents and other family members who are influential in forming the concept of marine environmental awareness. The results of the study indicate that the empowerment undertaken by parents includes (1) an introduction to the marine environment, (2) efforts to make children responsible for ocean problems, and (3) actions to help reduce sea problems and conceptualization of awareness of the simple marine environment at the same stage of cognitive development. Further research is needed to explore the more comprehensive conceptualization of marine environment awareness in early childhood.

Keywords: Empowering Parents, Marine Environmental Awareness, conceptualization of marine environmental awareness, Early Childhood.

Introduction

Most of the Indonesian children live in an environment close to the sea, with Indonesia's area broader than the sea. Children who live in the ocean's coastal regions need to get environmental education, which is environmental awareness. Environmental awareness is an important part of environmental education (Özden, 2008). Marine environmental awareness is apart of environmental awareness. It can be defined as a measure of a person's ability to understand the nature of environmental processes and problems, the level of concern for environmental quality, and the extent to which he is committed to environmental behavior in everyday life (Yeung, 1998). Environmental awareness is closely related to the individual understanding of the environment and correct behavior towards the environment.

Environmental awareness is not a child's innate nature, but the behavior is instilled in caring for the environment. To instill environmental awareness requires a continuous process. The planting of the concept of marine environmental awareness needs to be given since early childhood. Parents can make various efforts to help children participate in efforts to optimize their development. Parents can make empowerment efforts to realize a facilitative role that allows their child's participation in physical activities (Willis et al., 2019). Parents' support and efforts can help to form the concept of marine environmental awareness in children. Parents' empowerment by optimizing stimulation in children will make children conceptualize various things, including the conceptualization of marine environmental awareness. Therefore, it is necessary to do empowerment by parents to instill this concept.

Research Contexts

Environmental awareness is usually instilled through formal education in schools through environmental education. Environmental education, which is implemented using the field trip method, has a long-term effect on elementary school students (Farmer, Knapp, & Benton, 2007). At the formal environmental education, teachers have an outstanding influence on students. If student teachers have a positive attitude towards the environment, their students will have a positive attitude towards the environment, and they will be aware of environmental problems automatically (Özden, 2008). Maritime education programs can change junior-high-school students' perceptions, such as understanding the sea's importance, and their behavior is no longer throwing garbage into the sea (Sakurai, Uehara, & Yoshioka, 2018).

The cultivation of marine environmental awareness in children is still conveyed in a structured manner through school institutions in the learning process. This study explores empowerment by parents for the conceptualization of marine environmental awareness in early childhood. The context of this research consists of (1) empowerment carried out by parents to conceptualize marine environmental awareness in early childhood; (2) the concept of marine environmental awareness in early childhood, with the following research questions:

- a. How is empowerment by parents carried out to establish the concept of marine environmental awareness in early childhood?
- b. What are the concepts of marine environmental awareness that understood in early childhood?

Method

This research uses a qualitative approach because it allows me to understand the problem in a complex manner and allows me to explore it in depth. In particular, researchers used a case study approach. Case studies were chosen because they allow researchers to explore in depth from a variety of complex perspectives

(Swanborn, 2010; Yin, 2019). This study explores in depth parental empowerment to form the concept of marine environmental awareness in children. This research was conducted on two main participants: boys five years old and ten years old, who are siblings, also involving parents and other family members that are influential in forming the concept of marine environmental awareness. Data collection was carried out for two months using interviews and observation methods. This research consists of two main research phases: the preliminary phase, which is carried out by the interview method exploring parents and other family members' experiences. The process of forming in this phase has the concept of marine environmental awareness regarding children's efforts to raise awareness of the marine environment in children. The second phase was carried out using the main participant observation method regarding knowledge, attitudes, and behavior towards the marine environment.

In the first phase, the researchers conducted in-depth interviews with the parents of the participants regarding empowerment actions by parents based on the experiences that have been carried out with the participants in an effort to form the concept of marine environmental awareness in children. In addition, in this first phase, the researcher uses reflective journals as well as the parents of the participants who contribute to empowerment in the form of actions to help instill the concept of marine environmental awareness. In the second phase, researchers made direct observations of participants in their daily activities. Researchers observed participants' attitudes and behavior towards the environment, including when participants played by the sea. In addition to observations, semi-structured interviews were also conducted with participants to obtain information about the marine environment's knowledge based on the participants' concept that had gained from parental empowerment efforts.

Results and Discussions

The results of this study indicate the empowerment process carried out by parents by integrating several components. The parental empowerment model in research refers to the concept of reflexivity and the development of a knowledge process that includes experience, knowledge, and action (Sheppard, Newstead, Di Caccavo, & Ryan, 2000). Experience has a positive impact and is transformed into knowledge. Through a reflective process, the parents create the meaning of experience and finally develop the meaning into action in this research, experiences, and knowledge, then transform into parental empowerment actions to shape the concept of marine environmental awareness in children.

Empowering Parents

Empowerment can describe as a process of gaining personal power and control (Mulligan, MacCulloch, Good, & Nicholas, 2012). Empowerment has been defined within various frameworks, including human ecology, rehabilitation, community psychology, and social work (Singh et al., 1995). Empowering parents with a belief that they have a role to play in improving their child's quality of life (McDowell, 2020). Parental empowerment occurs due to parents utilizing knowledge, skills, and resources to gain a sense of control and improve their families' quality of life (Singh et al., 1995). Parental empowerment in this research was explored carried out in the first phase of the research. Parents shared their experiences in shaping the concept of marine environmental awareness. The father figure of the participants is very influential in this empowerment. The participants' father told me that they lived in Cirebon, West Java, Indonesia, which is a coastal area of the Java sea. However, the condition of the beach is very poor. According to him, the beach condition, which is full of rubbish, cannot be left on continuously. She hopes her children will understand that the earth is made up of land and sea, not just land. Therefore, the sea must be guarded by all of us because the sea's cleanliness is a shared responsibility. The sea

stored a wealth of many benefits for humans.

"I am concerned about the sea conditions in my area. The sea is just a trash can. All along the eye can see full of plastic waste sea. I often invite all my family members to play at the beach, which is close to where we live. I want my children to understand that the sea is God's creation as well as land. We must protect the sea so that it can provide benefits and not cause disaster." (Parent's Interview, 19 June 2020)

Apart from the parental figure, the next influencer is Aunty from the participants or the researcher himself. I felt my beautiful childhood enjoying the sea view in my area when I was a child. I want my nephews to have the same experience as I was little. I also realized that the effort to protect the marine environment is one of Islam's commands in the Koran, which states not to cause damage to the earth. This situation is not easy, but there needs to be a concrete effort to make it happen. If it is still difficult to expect from other people, I want to start the change effort from my nephew.

"My childhood experience was wonderful when playing in the sea. I can freely play by the sea with my parents. The sea that I remember as a child is clean. However, now, the sea in my area is not what it used to be. The sea is made into a landfill. I know that Allah commands to protect the environment and not to do earth damage. I want my nephews to enjoy a beautiful sea view." (Reflective Journal, 2 June 2020)

Empowering parents to form the concept of marine environmental awareness includes introducing the marine environment, making children responsible for marine problems, and efforts to take concrete actions to help reduce marine issues. These efforts have been made for almost a year ago.

They empower parents to familiarize participants with the marine environment by scheduling to go to sea with children at least every week to go to the sea. While playing by the sea, parents invite participants to explore plants and animals and convey knowledge

about the sea, such as waves, wind, tsunamis, and so on. In addition, parents and participants watched a video about the beauty of the seabed.

"I scheduled to go out to sea with the kids. At sea, we talked about waves, animals, and mangroves, including trash in the sea. Children feel happy hearing the sound of the waves. They also asked about things they wanted to know, for example, about mangrove crabs. Sometimes we also take the time to look for mud crabs. I do this so that my children feel happy playing in the sea and feel they own the sea. However, sea conditions are poor. Children also often watch videos about the situation of the sea with their aunty." (Parent's interview, 19 June 2020)

Nearly every dusk, I take the children to watch the cranes flying back to their habitat in the mangrove forests. I do this activity almost every afternoon, and the children are very happy. (Parent's interview, June 26, 2020)

I take the children to the sea to see firsthand that there is a lot of garbage in the sea. I invited them to discuss sea trash. What causes a lot of waste in the sea? What is the reason people throw the trash into the sea? Who should be responsible for maintaining the cleanliness of the sea? I ask these questions to them to realize that the sea is part of the earth that we must protect together. (Parent's interview, 25 June 2020)

Furthermore, the researcher invited participants to watch videos about marine conditions where there was a lot of garbage, including videos about turtles eating plastic waste in the sea. Researchers are trying to present marine problems, which are the problems currently facing the earth.

Pity the animals in the sea if there is a lot of garbage. At sea, when I play, there is also a lot of trash. People shouldn't litter in the sea. (Interview N, July 1, 2020)

The introduction of the marine environment is carried out as The marine environment's

introduction is carried out as an empowerment effort by parents because parents want to provide concepts through direct experience to children. Learning a concept through direct experience will have a long-term effect on the child (Farmer et al., 2007). Marine environment knowledge in early childhood will be obtained through interaction with the environment (Gifford, 2014; Yeung, 1998).

In addition to introducing the marine environment, parents also try to make participants have an attachment to marine issues. When the schedule is playing at sea, parents invite participants to discuss the problems of the sea. The marine issues discussed with the participants only focused on marine debris because the participants can see firsthand the garbage at the sea's edge.

Furthermore, the empowerment effort by parents is taking action to help reduce marine environmental problems. Parents invite children to reduce the use of single-use plastics and not to litter, especially plastic waste, because the environment they live in is close to the sea, it is likely that the waste will end up in the sea. In efforts to reduce disposable plastic waste, parents require children to bring drinking bottles when traveling.

"I will bring the children to drink in bottles when traveling so as not to buy bottled drinks that produce trash" (Parent's interview, 5 July 2020)

Overall, the empowering parents, together with researchers, form the concept of marine environmental awareness in children, including knowledge of the marine environment, namely efforts to introducing marine environment; attitudes towards the marine environment in the form of efforts to make children attach to marine problems, especially marine debris. Behavior towards the sea in the form of actions to help marine issues encourages children to reduce their use of single-use plastics and bring drinking water in bottles when traveling. Parents make this empowerment effort. Based on the empowerment efforts that have been done, children are delighted and always want to

play in the sea. Children can get to know the marine environment at sea, such as plants that live around the sea, such as mangroves, and animals that live by the sea.

Empowerment carried out by parents in forming the concept of marine environmental awareness is built on parental experiences as a concept (Sheppard et al., 2000). Parents' experiences about sea conditions and childhood experiences then shape parents' knowledge about the sea. The combination of experience and knowledge then transformed into empowerment actions in the form of efforts to form marine environmental awareness in children. Empowerment by parents to children can help children master a specific concept. Parental empowerment regarding marine environmental awareness refers to parents' personal experiences, then forms knowledge and then transforms it into actions in the form of empowerment efforts (Lam & Kwong, 2013). Parents are the primary agents of children's early learning and can influence their children (Fridani, 2020).

Plenty of evidence has shown that parental involvement benefits children's academic development and progress. Parental involvement directly affects the achievement of kindergarten children (Hayakawa, Englund, Warner-Richter, & Reynolds, 2017). Empowering parents means direct parental involvement. Parental beliefs determine empowerment activities that are considered important and critical for children (Greenfield, Quiroz, & Raeff, 2000; Hoover et al., 2005). Also, parental beliefs determine the role played in education and the family and their expectations about the effectiveness of educational settings to learning (Diamond & Gomez, 2004). The conceptualization of marine environmental awareness in early childhood is influenced by parents' belief in the concept of the marine environment. Parents build their role by considering their expectations and the people around them (Yamamoto, Holloway, & Suzuki, 2016). Empowering parents can interpret as an active decision-making effort for their child (Rouse, 2012). Parental

empowerment is evidenced by the active involvement of parents in setting goals (Xaba, 2015).

The conceptualization of marine environmental awareness in early childhood

Knowledge of environmental awareness includes a general view of the relationship between the individual and nature, the human-environment relationship, knowledge of activities, and orientation to the environment (Rannikko, 1996). Parents influence knowledge of environmental awareness in early childhood as role models for their children (Wiese & Freund, 2011). The process of forming marine environmental awareness refers to the concept of marine environmental awareness from (Chen & Tsai, 2015; Yeung, 1998) which includes knowledge, attitudes, and behavior towards the marine environment. Researchers explored these three components through interviews and direct observation of participants.

The concept of knowledge about the sea in children is still straightforward. Children even understand the marine environment as seen as direct when invited to go to the beach or watch videos. The cognitive development of children, according to Piaget, is still simple because N is still five years old in the pre-operational stage, and D is ten years old at the concrete operational stage. According to understanding, the concept of knowledge about the sea is that the sea is part of the earth. There are many fish and a home for fish in the sea; seawater tastes salty in sea waves. The sea is salt water—a place to live for fish, turtles, dolphins, whales, sharks.

Regarding marine cleanliness, they also understand that plastic waste can pollute the sea and harm fish in the sea. Both N (5 years) and D (10 years), in principle, knowledge of the sea is almost the same. Only D can explain knowledge about the sea in more detail with better language because of age.

"There are mangrove trees on the edge of the sea. The mangrove tree roots are like powerful legs, so the waves are blocked by the roots." (Interview N, 17 May 2020)

“The sea is part of the earth. There are lots of fish in the sea. The sea is salt water—a place to live for fish, turtles, dolphins, whales, sharks. However, in the sea, there is a lot of garbage, the sea will get dirty.” (Interview N, 1 July 2020)

“The sea is the home of fish and is part of the earth. The sea is salty water, unlike water that is on land. The water in the sea has waves. Sea is home to fish, turtles, whales, dolphins, rays, jellyfish, octopus, shrimp, coral reefs, and many more animals. A good sea is a sea that has no garbage, clean. In order rehearse, humans must dispose of garbage in its place.” (Interview D, 2 July 2020)

Children formed the ocean's knowledge through direct exposure to the marine environment, and videos watched about the sea. In principle, children already have basic knowledge about the sea and the sea's cleanliness at a simple concept level according to their cognitive development. Children focus on the concrete and observable elements of their world, but they also begin to organize these elements into trait categories as they describe themselves and others (Harter, 1999). Children will build their knowledge, starting with experiences and ideas to get meaningful learning in learning that connects scientific concepts (Littlelyke, 2008). Knowledge of the environment is closely related to parental knowledge and perceptions of environmental problems (Dillon & Gayford, 1997). Attitudes towards the marine environment are reflected in the sentences related to what should be done with garbage. According to them, plastic waste

is the most common waste in the sea. Many people litter in the sea so that the sea becomes dirty.

“There is a lot of plastic waste in the sea. The sea is dirty. We have to dispose of the trash in its place. If we are playing in the sea, we bring plastic waste, and the garbage has to be brought again until we find a garbage truck or trash truck, then discarded.” (Interview N, 2 July 2020)

Just like knowledge about the sea, attitudes towards the marine environment formed due to direct experience with parents going to the sea and frequent communication about good attitudes towards the environment, including the marine environment, namely disposing of garbage in its place. This knowledge and attitudes are then reflected in the children's daily behavior towards the environment.

N saw the plastic waste straw beside his house. Reflex N immediately took the trash and put it in the trash (Observation, 4 July 2020)

With higher age, D has behavior towards the marine environment by utilizing trash from matches into handicrafts. When asked, D replied that what he did was a sign that he loved the sea..

N was playing clamshells with his peers. N said to his friends that the clamshells are rubbish but can be washed and used for play. (Observation, 7 June 2020)

The sea has a lot of trash. When I went to the sea, I saw that there was a gaslighter. The former gas lighter can use to make crafts. So, I made it. (Interview D, 7 July 2020)



Figure 1. D is making crafts from used gas matches.

Environmental awareness and sensitivity are influenced by beliefs, attitudes, and social pressures (Özden, 2008). In this case, the child's beliefs and attitudes towards the environment arise because of the parents' empowerment. By involving children to witness environmental problems and knowledge of the environment, it will enable children to grow up to be more aware of the environmental consequences of human activities (Korhonen & Lappalainen, 2004).

Conclusion

Empowering parents about marine environmental awareness in early childhood is carried out by introducing the marine environment, attaching themselves to marine problems, and reducing marine problems. The conceptualization of marine environmental awareness in children is still simple at the age of cognitive development. The concept of marine environmental awareness in early childhood consists of (1) knowing marine biota, understanding the function of trees and mangroves; (2) understanding that there are marine problems, especially marine debris, which is a shared responsibility; (3) behavior reflects reducing the use of plastic waste and building trash in its place.

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