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# The Role of Families in Shaping Ecoliteracy in Early Childhood

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## Abstract

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Global environmental issues such as climate change, pollution, deforestation, and the loss of biodiversity demand the cultivation of ecological awareness from an early age. In Indonesia, one of the major problems is the increasing volume of household waste, which is mainly triggered by the low level of public awareness in proper environmental management. A strategic solution to address this challenge is environmental education introduced in early childhood through the active involvement of the family. The family plays a crucial role as a role model, facilitator, and primary agent in shaping children's pro-environmental behavior. Ecological learning within the family context can be realized through modeling, communication, the creation of an educational home environment, children's involvement in environmental activities, and collaboration with Early childhood education (*Pendidikan Anak Usia Dini*/PAUD) institutions. This article applies a library research method to examine the role of the family in fostering ecoliteracy in early childhood. The findings highlight that the family, as the child's first laboratory, contributes significantly to instilling ecological values, shaping sustainable habits, and building a strong ecological identity.

## 1. Introduction

Environmental issues have become one of the most complex global challenges facing humanity in the 21st century. Climate change, biodiversity loss, air and water pollution, deforestation, and the over-exploitation of natural resources are interconnected problems with widespread impacts on ecosystem sustainability. Various studies show that environmental damage not only threatens the survival of flora and fauna but also has serious effects on global health, well-being, and political stability. In the Indonesian context, environmental problems are evident through the high production of household waste, low public awareness of waste management, and a weak culture of sustainable living (Brotosusilo et al., 2022). This condition leads to soil and water pollution, the spread of diseases, and contributes to a larger ecological crisis. Therefore, building environmental awareness from an early age is an urgent need so that the younger generation has the necessary care and skills to maintain the sustainability of nature.

One of the important concepts developed in environmental education is ecoliteracy or ecological literacy. Slimani et al. (2021) defines ecoliteracy as a person's ability to understand ecological principles, realize the interconnectedness of humans with nature, and be able to act responsibly for environmental sustainability. Ecoliteracy does not only emphasize the cognitive aspect in the form of knowledge but also includes the affective dimension in the form of ecological awareness and the psychomotor dimension in the form of pro-environmental action skills. In other words, ecoliteracy is an integration of knowledge, attitude, and action within a framework of sustainability. In the context of early childhood, the introduction of

ecoliteracy is very important because early age is considered a golden age (critical period) in the formation of character and life habits.

The family, as a child's first social environment, has a strategic role in instilling ecological values. Through the process of modeling, children learn by imitating the behavior of their parents. When parents consistently throw garbage in its place, save energy, or plant trees, this behavior will be imitated and internalized by the child. Herdiansyah et al. (2021) emphasizes that ecological learning through family role models is more effective than a formal approach because it happens naturally in daily life. In addition, the family can also create an educational home environment, for example by providing a small garden or mini-farm, and involving children in planting activities. Kim et al. (2020) found that children's involvement in planting activities increases their sense of responsibility, care, and empathy for living things.

Communication within the family is also an important aspect of forming ecoliteracy. Simple conversations about the importance of saving energy, storytelling with environmental themes, or discussing the causes of natural disasters are effective means of instilling ecological awareness. Huang (2020) emphasizes that dialogical communication is more meaningful than one-way instructions because children learn to understand ecological values in the context of real life. In addition, involving children in environmental activities such as sorting trash, participating in family clean-up activities, or visiting a recycling center provides concrete experiences that strengthen children's ecological knowledge and attitudes (Safira et al., 2022).

Environmental education at home also needs to be supported by collaboration with PAUD institutions. When ecological values are taught

consistently at home and at school, the internalization that occurs will be stronger. Lang et al. (2020), shows that the synergy between teachers and parents creates continuity in ecological parenting patterns so that children do not experience confusion due to different messages. Programs such as green schools, energy-saving campaigns, or recycling competitions become collaborative means that strengthen the involvement of children and families.

Based on the description above, it is clear that the family has a key position in building early childhood ecoliteracy. However, there is still a gap in daily practice, as many families do not yet understand their strategic role as agents of environmental education. Therefore, this article aims to further examine the role of the family in instilling early childhood ecoliteracy through a literature review. Thus, the results of this study are expected to provide a practical educational framework that is useful for parents, PAUD teachers, and environmental education stakeholders to form a generation that cares about the preservation of nature.

## 2. Literature Review

The literature review on the role of the family in the development of early childhood ecoliteracy confirms that the family holds a central position as the main agent in the process of internalizing ecological values. A number of studies highlight that the function of the family is not limited to supervision but also includes the aspects of role modeling, creating a supportive learning atmosphere, effective communication, and genuine involvement in environmentally friendly activities. From the perspective of Bandura's social learning theory, children acquire behavior

through the process of observation, imitation, and modeling. This is in line with environmental education, where parental habits such as throwing garbage in its place, saving energy, or choosing environmentally friendly products serve as real examples that are easily absorbed by children.

Herdiansyah et al. (2021) explains that ecological learning within the family takes place naturally and is unstructured, but its influence is very strong. Early childhood children cannot yet understand complex instructions, but they are able to absorb parental behavior that is done consistently. Thus, the family is positioned as the main role model. The same thing was conveyed by Chawla (2020), who stated that direct experience, such as inviting children to plant trees or bringing their own shopping bags, is more effective than mere verbal advice. These findings show that practical involvement can form a deeper ecological attitude.

In addition to role modeling, creating a home environment that supports ecological learning is also an important factor. Kim et al. (2020) argues that simple activities such as planting in the home can foster a child's sense of ecological responsibility. The home functions as an initial laboratory where children interact with nature, either through plant care, raising animals, or using used goods to make crafts. These activities not only enrich ecological knowledge but also train a child's reflective and creative skills in managing resources wisely.

The communication aspect in the family also plays a big role. García-Carrión et al. (2020) emphasizes the importance of dialogical communication that gives children an understanding of the relationship between human actions and their impact on the environment. This strategy can be strengthened through storytelling

or reading stories with environmental themes (Harris, 2021), which are relevant to a child's world of imagination and make it easier to understand ecological issues.

Furthermore, involving children in environmental activities is another effective strategy. Safira et al. (2022) states that children's involvement in family activities such as sorting trash or cleaning the garden has a significant effect on the formation of pro-environmental attitudes. Visits to recycling centers and eco-tourism destinations expand a child's knowledge of ecology. In addition, participation in environmental communities from an early age, as explained by Chawla (2020), also strengthens ecological identity. Collaboration between families and *Pendidikan Anak Usia Dini (PAUD)* institutions is also an important strategy. The continuity between messages at home and at school strengthens the internalization of ecological values. From various findings, it can be concluded that the family plays a comprehensive role in the formation of ecoliteracy, including the aspects of role modeling, communication, creating a learning environment, active participation, and collaboration with formal educational institutions.

## 3. Methods

This article was compiled using a literature study or library research method, which focuses on an in-depth review of various scientific works, books, journal articles, and research reports relevant to the topic of the family's role in forming early childhood ecoliteracy. This method was chosen because it is suitable for reviewing existing concepts, theories, and empirical findings, so that a strong conceptual framework can be built without collecting primary data. A literature study allows the

author to integrate various perspectives, identify patterns, and find research gaps that have not been widely studied before. The process of collecting literature was carried out by searching academic databases such as Google Scholar and relevant early childhood education journals related to environmental education. The keywords used included "ecoliteracy", "environmental education", "early childhood", "role of the family", and "ecological modeling". In addition, reference books on social learning theory, child developmental psychology, and sustainable education were also reviewed to enrich the theoretical basis.

The literature selection criteria included publications and relevant to the contemporary context, although some classic references such as Bandura's social learning theory were still used as a conceptual basis. The selected literature had to focus on the relationship between the family and the formation of a child's environmental awareness and contain empirical data or conceptual ideas that support the discussion. The analysis stage was carried out by classifying the literature into main themes, such as the family's role as a role model, creating an educational home environment, ecological communication, involving children in environmental activities, and collaboration with PAUD institutions. The analysis was then carried out in a synthesis, which is by combining various findings and arguments to build a cohesive narrative about how the family contributes to forming early childhood ecoliteracy.

This approach is descriptive-analytical. It is descriptive because it focuses on describing and summarizing the results of previous research, and it is analytical because it seeks to interpret, compare, and connect the existing literature to produce

a more comprehensive understanding. With this method, the article not only represents existing findings but also provides a new interpretation that emphasizes the importance of the family as the main agent of environmental education. Thus, the literature study method in this article aims to present a complete conceptual framework, identify the family's significant contribution to the formation of early childhood ecoliteracy, and offer practical recommendations for parents, teachers, and stakeholders in the field of environmental education.

## 4. Results and Discussion

### 4.1 The Role of the Family as the Main Agent in Forming Early Childhood Ecoliteracy

The results of the literature review show that the family has a central position in forming early childhood ecoliteracy. The family not only functions as the first place where a child grows and develops but also as an initial laboratory where values, habits, and behavioral patterns are formed. Bandura's social learning theory emphasizes that children learn through a modeling process, which is by imitating the behavior of adults who are significant figures in their lives. In this context, parents are the main role models for children in forming ecological attitudes and behaviors. Herdiansyah's (2021) research confirms that the ecological behavior of parents, such as throwing garbage in its place, saving electricity, or using environmentally friendly products, will be consistently imitated by children. This is in line with the findings of Chawla (2020), who state that children absorb ecological messages more easily

through real actions than mere verbal advice. Thus, role modeling becomes the main foundation for environmental education at home.

In addition to modeling, the family also plays a role in creating an educational home environment. Kim et al. (2020) found that children who are involved in simple planting activities at home, such as watering plants or planting vegetables in small pots, show a significant increase in ecological awareness. These activities not only provide sensory and motor experiences but also train a sense of responsibility for living things. A home that provides a green space or creative activities based on recycling helps children understand the principles of reduce, reuse, and recycle from an early age. Communication within the family is also proven effective in strengthening the internalization of ecological values.

Huang (2020) emphasizes the importance of simple dialogical communication, such as inviting children to discuss why lights must be turned off when not in use or why trash must be sorted. Conversations like this are more memorable than formal instructions because they are directly related to daily life. Harris (2021) even adds that storytelling with environmental themes can be an educational medium that touches a child's affective side. A story about animals losing their habitat due to deforestation, for example, can foster empathy while providing ecological understanding in a fun way. Furthermore, involving children in environmental activities with the family also has a significant impact.

Safira et al. (2022) shows that children who are involved in simple activities such as cleaning the yard or sorting household waste show a more caring attitude towards cleanliness and environmental preservation. This concrete experience

provides an understanding that protecting the environment is not just discourse but part of daily life reinforces that visits to recycling centers or eco-tourism broaden a child's knowledge and strengthen family bonds through shared learning experiences. A child's ecological identity is not only formed through individual activities at home but also through participation in social activities. Chawla (2020) emphasizes that a child's involvement in environmental communities such as tree-planting actions or energy-saving campaigns forms a stronger ecological awareness because the child witnesses the real impact of collective action.

Thus, the family has a dual role: guiding children in ecological practices at home while introducing ecological responsibility in a broader social context. From the various studies above, it can be concluded that the family acts as the main agent in the formation of early childhood ecoliteracy through role modeling, creating an educational environment, dialogical communication, involving children in environmental activities, and social participation. All these aspects are interconnected and contribute to the formation of consistent and sustainable ecological behavior in children.

### 4.2 Family Collaboration with PAUD Institutions in Building Early Childhood Ecoliteracy

In addition to the direct role of the family, the literature also shows the importance of collaboration between the family and PAUD institutions in building a child's ecoliteracy (Rosidah et al., 2022). This collaboration is seen as a strategy that strengthens the continuity of ecological values instilled both at home and at school. Environmental education given consistently in these two contexts will be more easily

internalized by the child because the child does not experience confusion due to different messages or practices. Harmonious coordination between teachers and parents creates a synergy in ecological parenting patterns. For example, if at school a child is taught to bring their lunch without plastic, then parents at home need to support this policy by preparing environmentally friendly eating utensils. Such synergy prevents contradictions in a child's learning and strengthens positive habits. Geitz and de Geus (2019) add that the continuity between school and home can build a consistent ecological culture, so that children not only understand ecological values cognitively but also internalize them in daily life.

Concrete forms of collaboration between families and PAUD institutions can be realized through various joint activities (Rahmat et al., 2023). Green school programs, energy-saving campaigns, recycling competitions, or tree planting become collaborative forums that involve not only children but also parents. Kane et al. (2021) emphasizes that parents' involvement in school-designed programs increases their emotional bond to environmental issues while strengthening the values their children receive. This activity also provides a space for parents to learn, so they can be more consistent in instilling ecological habits at home. In addition to joint activities, this collaboration also includes brief education for parents on how to instill ecoliteracy at home. PAUD teachers can provide simple guides, such as strategies for inviting children to sort trash or how to use used goods for play. Thus, the collaboration not only targets children but also increases the capacity of parents as the main ecological educators. This is in line with the concept of two-way education,

where families and schools support each other in creating a sustainable learning environment.

Furthermore, this collaboration also functions to broaden a child's learning experience into the social realm. Children who are used to participating in environmental programs at school will be more ready to get involved in broader community activities with their families (Gustian et al., 2022). Thus, the environmental education ecosystem that is formed includes the home, school, and community. This model creates a consistency of values while strengthening a child's connection to environmental issues in a real way. The results of the literature review as a whole confirm that the collaboration between families and PAUD institutions is not just complementary but is a strategic pillar in early childhood environmental education. Without this synergy, ecological education has the potential to be fragmented, so that children do not gain a complete understanding. Therefore, investing in this collaboration is an important step to form a generation that has high ecological awareness and is able to contribute to the sustainability of ecosystems in the future.

## 5. Conclusion

The results of the literature review show that the family holds a very strategic role in forming early childhood ecoliteracy. As the first and closest social environment, the family functions as the main agent that instills ecological values, attitudes, and habits. Through role modeling, parents can be a real example for children in implementing environmentally friendly behavior, such as throwing

garbage in its place, saving energy, and maintaining cleanliness. The home as the first laboratory provides a space for children to learn directly through activities such as planting, making recycled crafts, or caring for pets. Dialogical communication in the family also strengthens a child's ecological understanding, while involvement in environmental activities, both at home and in the community, forms a strong ecological identity.

In addition, family collaboration with PAUD institutions is proven to be an important pillar in building a child's ecological awareness. The synergy between school and home creates a continuity of values, prevents learning contradictions, and strengthens the internalization of pro-environmental behavior. Joint programs such as green schools, energy-saving campaigns, or tree planting provide deep, real experiences for children while increasing the capacity of parents as ecological educators. Thus, building early childhood ecoliteracy cannot be separated from the active role of the family. The consistent application of ecological values at home, meaningful communication, and collaboration with educational institutions are important foundations in creating a generation that cares about the environment and is able to contribute to the sustainability of ecosystems in the future.

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